

Biology 2**Human Biology Fall 2014****Weekly Schedule 11****Lectures:** Mon, Wed, Fri (11:15-12:20)**X-Hours:** Tues (12:00-12:50)**Text:** None required (Johnson, Human Biology, on Baker Course Reserve for reference)**Course Web Site:** [http://canvas.dartmouth.edu /](http://canvas.dartmouth.edu/)**Faculty:** Professor Lee A. Witters**Teaching Assistants:** Gillian O'Connell 15 & Julia Salinaro 15

<u>Day/Date</u>	<u>Type of Class</u>	<u>Subject</u>
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Section I: We Are Us, Them and “Mini-Me”

Mon/Sept 15	Lecture 1	Human Biology: Varying Portraits of a Human Life
Tues/Sept 16	X-hour	Bio2: How You Can Learn & What You Want To Learn
Wed/Sept 17	Lecture 2	Chemistry of Life I
Fri/Sept 19	Lecture 3	Chemistry of Life II/ Online Assessment Quiz
Mon/Sept 22	Lecture 4	Structure and Function of Cells
Tues/Sept 23	X-hour	Questions & Answers
Wed/Sept 24	Lecture 5	Cell Metabolism and Energy I
Fri/Sept 26	Lecture 6	Cell Metabolism and Energy II/ Online Assessment Quiz
Mon/Sept 29	Lecture 7	Chemistry of DNA/RNA

Mon/Sept 29	Pre-Exam Review Session with TAs, 6-8 PM, LSC 201
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Tues/Sept 30	X-hour	Questions & Answers
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Tues/Sept 30 MID-TERM #1 (Section I: Lectures #1-7), 7-9 PM, Oopik Auditorium (LSC 100)
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Section II: Genes, Gender & Sex: The Good, The Bad and Our Future
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Wed/Oct 1	Lecture 8	Chromosomes and Cellular Reproduction
Friday/Oct 3	Lecture 9	Human Genetics I/ On-line Assessment Quiz
Mon/Oct 6	Lecture 10	Human Genetics II
Tues/Oct 7	X-hour	Questions & Answers

Wed/Oct 8	Lecture 11	The Human Genome: Genetic Diagnosis and Engineering
Friday/Oct 10	Lecture 12	Cancer: A Genetic Disease// Online Assessment Quiz
Mon/Oct 13	Lecture 13	Gender and Reproduction I
Tues/Oct 14	X-hour	Questions & Answers
Wed/Oct 15	Lecture 14	Gender and Reproduction II
Fri/Oct 17	NO CLASS	On-line Assessment Quiz
Mon/Oct 20	Lecture 15	Human Development, Birth and Aging

Mon/Oct 20 Pre-Exam Review Session with TAs, 6-8 PM, LSC 201

Tues/Oct 21	X-hour	Questions & Answers
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Tues/Oct 21 MID-TERM #2 (Section II: Lectures #8-15), 7-9 PM, Oopik Auditorium (LSC 100)

Section III: Five Indispensables: Hormones, Food, Muscles, Bones & Kidneys

Wed/Oct 22	Lecture 16	The Endocrine Glands: Whence Our Hormones
Fri/Oct 24	Lecture 17	The Digestive System: Our Second “Outside” / Online Assessment Quiz
Mon/Oct 27	Lecture 18	Why Do We Eat?
Tues/Oct 28	Lecture 19/ X-Hour	Diabetes Mellitus: An Ancient and Modern Disease
Wed/Oct 29	Lecture 20	Malnutrition, Obesity & Anorexia Nervosa
Fri/Oct 31	Lecture 21	Muscles, Bones & Joints/ Online Assessment Quiz
Mon/Nov 3	Lecture 22	Urinary System: Two Kidneys & One Bladder/

Mon/Nov 3 Pre-Exam Review Session with TAs, 6-8 PM, 6-8 PM, LSC 201

Tues/Nov 4	X-Hour	Questions & Answers
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Tues/Nov 4 MID-TERM #3 (Section III, Lectures #16-22), 7-9 PM, Oopik Auditorium (LSC 100))

Section IV: The Four B's: Brains, Bugs, Breath and Blood

Wed/Nov 5	Lecture 23	Neurologic System and Disease
Fri/Nov 7	Lecture 24	Human Microbiome/ Infectious Diseases / Online Assessment Quiz
Mon/Nov 10	Lecture 25	The Immune System
Tues/Nov 11	Lecture 26/ X-Hour	HIV/AIDS
Wed/Nov 12	Lecture 27	Respiratory Physiology & Diseases
Fri /Nov 14	Lecture 28	Circulation: Blood & Cardiovascular System/ Online Assessment Quiz
Mon/Nov 17	Lecture 29	Hypertension and Atherosclerosis
Tues/Nov 18	X-Hour	Questions & Answers

Wed/Nov 19 Pre-Exam Review Session with TAs, 6-8 PM, 6-8 PM, LSC 201

Fri/Nov 21 FINAL EXAM (Section IV, Lectures #23-29), 8-11 AM, site TBD

Course Structure, Expectations and Help MUST READING ON DAY ONE OF COURSE (along with “Tips for Success in Bio2”)

1. **Our first X-hour** on Tuesday, September 16, will be for two purposes: (1) A short presentation as to how to approach this course and your learning over the term and (2) a group planning session to establish topics you would like to hear about during the term. **Attendance at this session highly encouraged (and you can earn course points by attending (see below)).** Two other X-hours will be used for 2 of the lectures (#19 & 26). The remaining X-hours are for question & answers on course material. I will be asking some of the questions in these sessions using Lecture Tools (see below) to help establish points of discussion. These quizzes will be given to the entire class as a group and responses solicited through Lecture Tools. They are also an opportunity to assess where you are in your study of the course material. **No new material will be introduced in the X-hours.** *These latter sessions are OPTIONAL, but of value in reinforcing information from the lectures; you are strongly urged to attend to complement your learning in the course and to gauge where you are with the course material.*

2. **Regular class attendance is expected of all students.** Though academic schedules may sometime conflict with College-sponsored or –recognized extracurricular events, *there are no excused absences for participants in such activities.* Should such conflicts occur or be anticipated, each student is responsible for discussing the matter with me.

3. I ask that you **all sit in the front of the classroom**; this creates a community of learners and allows me and your classmates to engage you during the class. **Laptop use in class** has its pros & cons. *It is fine to use your laptop for taking notes in this class, but I expect that you will be using it only for that and not for checking your email, Facebook page or the Internet.* The latter has been shown to distract not only you from the learning atmosphere, but also those sitting near you. Parenthetically, it has been shown in some studies that taking notes by hand is superior to typing them on your laptop.

4. Your **numerical course grade (200 points possible)** will be determined in two ways:

a. **Course exams (180 points; 45 points per exam).** There will be a non-cumulative exam covering each of the four sections of the course (i.e. 3 midterms and “final”). The schedule indicates the lectures to be covered in each exam; all will be held in the evening. The format of the exams will be mixed containing “multiple choice”, “true/false”, “matching”, short narrative answers (3-4 lines) and problem-solving questions that will require a short paragraph of narrative writing. The course exams from the f13 course are posted on the web site. *Material for the examinations will be drawn entirely from lectures (including the PP slides) and the syllabus notes.* Grading will be done by Professor Witters. Graded exams can be picked up in his office.

b. **On-line assessment quizzes (20 points; 2 points each).** Every Friday afternoon, a short quiz will be posted on our Canvas web site on the course material covered since the prior quiz. **These quizzes will only be available on-line until 10 PM the following Sunday evening. They will NOT be graded; you earn 2 points merely by completing the quiz.** While you can complete them by referencing class materials, you are **encouraged to take them in closed-book mode** to maximize the value of these quizzes, which I regard as learning tools to tell you where you are. **Answers (with explanations) will be posted the Monday following the quiz.** Collated quizzes for each section will be made available again before each of the exams. There are a total of 9 quizzes (2 points each); 2 points also awarded for attending the first X-hour.

In addition to these quantitative assessments, each student will have a chance to influence her/his **actual letter grade** by what I term **“course engagement”**. By this, I mean, is the student an active & curious participant in the course throughout the term (not just intermittently or towards the end of the course) in the classroom, in my office hours, in working with the TAs in study groups and/or tutoring, and/or in helping us

all by asking questions on-line on our web site and/or offering comments. Such an assessment will not, in general, cause a major adjustment in a letter grade, but could well influence “borderline” grade assignments, though “engagement”, in my experience, invariably results in better performance on course examinations, as well.

In accordance with the general guidelines of the Biology Department, a passing performance in this course demands both satisfactory completion of all exams and the achievement of greater than 50% of total course points (≥ 100 points). **In the past two offerings of this course, the course median grade has been B+ and has been “adjusted” to account for any Biology majors in the class.** Grading is “on a curve”; there are no pre-determined “cut-offs”, save that everyone who earns at least 90% of possible points (i.e. 180 points) will receive “some kind of A” (A or A-). **In the preparation for and in the taking of examinations, adherence to the Academic Honor Principle, as detailed in the Student Handbook and at <http://www.dartmouth.edu/~uja/honor/>, is expected. As a routine, I randomly scan examinations prior to grading to discourage any changes after they are returned. Violations of the Honor Principle will be promptly reported to the appropriate Deans.**

5. For nearly all weeks, I will hold **office hours 7 days a week**. At each class, a sign-up sheet for office hours will be on the desk for students to sign up for appointments to meet with me either that day or at other times during the week/weekend to discuss biology, course material, exam grading or other areas of concern. *Students are ALWAYS welcome and encouraged to stop by my office to meet me, even if there are no matters of controversy, ambiguity or other course business!! If our schedules don’t “match”, just e-mail me and we will find an alternative time to meet.* My goal is to have everyone succeed in this course AND at Dartmouth and I am anxious to get to know you and to help you in any way I can. A MAP INDICATING THE LOCATION OF MY OFFICE IN THE LIFE SCIENCES CENTER FOLLOWS.

6. Our **course TAs**, Gilliam O’Connell 15 and Julia Salinaro 15, will be helping in the preparation of the quizzes (and answers) and will monitor Piazza on the web site. They will lead class review sessions prior to each exam and will set up a weekly Sunday evening study group. They will be attending every class (meet & greet them!) and are available by e-mail. They will also be in touch with you through the web site after each lecture to identify the “muddy” areas of confusion that we might need to go over again to teach it more effectively.

7. Our **course web site** uses **Canvas** as the learning management tool (<http://canvas.dartmouth.edu>). Educational Technologies has prepared a series of short videos and help pages and you are encouraged to acquaint yourself with these early in the term (see ‘**Canvas Tutorials**’ on ‘**Syllabus**’ page). We will review some of the features at our first X-hour. I think you will find it has some wonderful features that will expedite your learning, will help you in scheduling and will make for a superior addition to our technical capabilities.

On Day One of the course, please set up your e-mail contact information, as I will be using this mode to communicate with you during the course. Instructions how to do this are in ‘Canvas Tutorials’ on ‘Syllabus’ page.

On Day One, also take a tour of the Canvas site to see how it is organized. The site is organized with a ‘Syllabus’ page (which has several links to general course pages and course aids), a ‘Calendar’, individual pages devoted to each course section (each of which, in turn, contains lecture notes, PP slides, links to movies), a link to ‘Piazza’ which we will use for interactive Q&A/discussions (more on that later), a ‘Assignments’ section (where the weekly quizzes/answers and exam answer keys will be posted) and a ‘Grades’ section. There is also a ‘Chat’ section that we can use for text chats, as needed/scheduled, during

the term. You will also find a link to Echo lecture captures (below) from the 'Syllabus' page and from all of the lecture topic pages.

I STRONGLY encourage the viewing of the Powerpoint files posted on this site on your computer (the animation and color can be very helpful); some also like to print these out. They will be up-loaded prior to each class, typically the weekend before the lectures for the coming week.

8. **Lecture Captures/Podcasts.** We will be using the Echo lecture capture recording system in place in our classroom this term. These files will be available within a few hours of the lecture in a link on the 'Syllabus' page and from each lecture topic page. The video will capture my computer screen, not the room, me or you! Any laser pointing will not be seen. **While I do NOT regard this as a substitute for class attendance,** it might be helpful for several of you if you have an unavoidable absence from class or would simply like to review aspects of a lecture or discussion (you can start and stop me!). Historically, many students have found these useful as a course study adjunct. However, there are things we do in class that are not easily captured with these technologies (especially classroom discussions, student questions).

Keep in mind that there is NO GUARANTEE that this Echo technology will work to effectively capture every lecture, so DO NOT rely on this system as a substitute for class attendance!

9. This term we will use, Lecture Tools, which has been incorporated into our Canvas site. Lecture Tools is an interactive program that allows extended faculty-student engagement in the classroom setting, providing, among other things, platforms for asking/answering questions. **You should each create an account** so that you can take advantage of this as we use it, largely in X-hours and in TA study groups & reviews. **To do this, go to our Canvas site and click on 'Lecture Tools' in the 'Syllabus' section. Follow the instructions included in this folder (including a screencast) to create your account.** If you have difficulties setting up an account after you have registered for the course (it may take a day for you to appear on the Canvas roster after you register), let me know. We will have a class demo to show you how this works and how we will use it in our first scheduled X-hour.

10. **Students desiring an individual tutor (or a tutor for a small group) should see me first,** rather than go to the Tutor Clearing House in the Academic Skills Center. In the past, when the course TAs were overburdened, I have been able to identify students who are helpful. *I encourage everyone to first work with the course TAs; both are extremely knowledgeable and will be attending every lecture this year (so they are up-to-date on course content).*

11. Students with disabilities, including chronic diseases, learning disabilities, and psychiatric disabilities are encouraged to discuss with me after class or during my office hours appropriate accommodations that might be helpful to them. Please do this EARLY in the course and not just before the 1st exam. I have worked closely with Student Accessibility Services in the past and can work with students myself to find study methods, tutoring needs and exam accommodations for those eligible for same.

12. Some students may wish to take part in religious observances during the term. If you have such a conflict, please come and discuss with me, so we can make appropriate arrangements.

13. **No textbook is required for this course.** In my experience, many Human Biology texts are outlandishly expensive, not up-to-date and lacking in many of the things we will cover in this course. Some students, though, want to have one as a ready reference to complement what they are learning in lecture. One is only important to the extent that it reinforces or reproduces other sources of information. Copies of a standard Human Biology text are on reserve in Baker (Johnson, Human Biology).

