

Biology 2**Human Biology Fall 2019****Weekly Schedule 11****Lectures:** Mon, Wed, Fri (11:30-12:35)**X-Hours:** Tues (12:15-1:05)**Text:** None required**Course Web Site:** <http://canvas.dartmouth.edu/>**Faculty:** Professor Lee A. Witters**Teaching Assistants:** Magdalena Raska 20 and Sophia Jacobi 21

<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 16	Lecture 1	Human Biology: Varying Portraits of a Human Life/ Class Survey posted
Tues/Sept 17	X-hour	Bio2: How You Can Learn & What You Want To Learn
Wed/Sept 18	Lecture 2	Chemistry of Life I
Friday, Sept 20	Lecture 3	Chemistry of Life II/ Online Assessment Quiz #1 posted
Mon/Sept 23	Lecture 4	Structure and Function of Cells
Tues/Sept 24	X-hour	Questions & Answers
Wed/Sept 25	Lecture 5	Cell Metabolism and Energy I
Fri/Sept 27	Lecture 6	Cell Metabolism and Energy II / Online Assessment Quiz #2 posted
Mon/Sept 30	Lecture 7	Chemistry of DNA/RNA
Tues/Oct 1	X-hour	Questions & Answers
Wed/Oct 2	Lecture 8	Chromosomes/ Cellular Reproduction/ Online Assessment Quiz #3 posted
Fri/Oct 4	NO CLASS	
Sun/Oct 6 Pre-Exam Review Session with TAs, 6-8 PM		
Mon/Oct 7	Optional	Question & Answers

Mon/Oct 7 MID-TERM #1 (Section I: Lectures #1-8), 7-9 PM

Section II: Genes, Gender & Sex: The Good, The Bad and Our Future

Tues/Oct 8	X Hour Lecture 9	Human Genetics I
Wed/Oct 9	Lecture 10	Human Genetics II (+listen to pre-recorded mini-lecture in advance)
Fri/Oct 11	Lecture 11	The Human Genome: Genetic Diagnosis and Engineering / On-line Assessment Quiz #4 posted
Mon/Oct 14	Lecture 12	Cancer: A Genetic Disease
Tues/Oct 15	X-hour	Questions & Answers
Wed/Oct 16	Lecture 13	Sex, Gender and Reproduction I
Fri/Oct 18	Lecture 14	Sex, Gender and Reproduction II/ On-line Assessment Quiz #5 posted
Mon/Oct 21	Lecture 15	Human Development, Birth & Aging

Mon/Oct 21 Pre-Exam Review Session with TAs, 6-8 PM

Tues/Oct 22	X-hour	Questions & Answers
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Tues/Oct 22 MID-TERM #2 (Section II: Lectures #9-15), 7-9 PM

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

Wed/Oct 23	Lecture 16	The Endocrine Glands: Whence Our Hormones
Fri/Oct 25	Lecture 17	Digestive System: Our 2nd“Outside” / Online Assessment Quiz #6 posted
Mon/Oct 28	Lecture 18	Why Do We Eat?
Tues/Oct 29	X-Hour Lecture 19	Malnutrition, Obesity & Anorexia Nervosa
Wed/Oct 30	Lecture 20	Diabetes Mellitus: An Ancient and Modern Disease
Fri/Nov 1	Lecture 21	Muscles, Bones & Joints/ Online Assessment Quiz #7 posted
Mon/Nov 4	Lecture 22	Urinary System: Kidneys & Bladder

Mon/Nov 4 Pre-Exam Review Session with TAs, 6-8 PM, 6-8 PM

Tues/Nov 5	X-Hour	Questions & Answers
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Tues/Nov 5 MID-TERM #3 (Section III, Lectures #16-22), 7-9 PM

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

Wed/Nov 6	Lecture 23	Neurologic System and Disease
Fri/Nov 8	Lecture 24	Human Microbiome/ Infectious Diseases/ Online Assessment Quiz #8 posted
Mon/Nov 11	Lecture 25	The Immune System
Tues/Nov 12	X-Hour Lecture 26	HIV/AIDS
Wed/Nov 13	Lecture 27	Respiratory Physiology & Diseases
Fri/Nov 15	Lecture 28	Circulation: Blood & Cardiovascular System/ Online Assessment Quiz #9 posted
Mon/Nov 18	Lecture 29	Hypertension and Atherosclerosis
Tues/Nov 19	X-Hour	Questions & Answers

Wed/Nov 20 Pre-Exam Review Session with TAs, 6-8 PM, 6-8 PM

Sun/Nov 24 FINAL EXAM (Section IV, Lectures #23-29), 3-6 PM, site TBD

Course Structure, Format, Expectations and Help **MUST READING ON DAY ONE OF COURSE**

(along with “Tips for Success in Biology 2” and “Study Strategies for Success”)

1. **Our first X-hour on Tuesday, September 17** will be for two purposes: (1) A 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 2 course points by attending (see below))**. Three other X-hours will be used for 3 of the lectures (#9, 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 the PollEverywhere audience response system (to be demonstrated at our first X-hour) to help establish points of discussion. These questions will be given to the entire class as a group and responses solicited through this platform. The questions will also be 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 Q&A 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 towards 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 trolling the internet (same applies to your smartphone).** **If you feel you can’t abide by this, please sit on the sides of the classroom so as to be the least disruptive.** “Surfing the web” 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” (all non-cumulative)). The schedule indicates the lectures to be covered in each exam; all will be held in the evening (save the “final”). 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 f18 course are posted on the web site. *Material for the examinations will be drawn entirely from lectures (including the PP slides); the “Quick Review” slides indicate the topics to be covered.* Grading is done by Professor Witters. Graded exams can be picked up in his office or after class.

b. **On-line assessment quizzes (20 points; 2 points each).** Every Friday at 6 PM (beginning Week 1), a short quiz will be posted on our Canvas web site on the course material covered since the prior quiz. **You will have until 10 PM the following Sunday evening to work on the quiz. They will NOT be graded; you earn 2 points merely by completing the quiz and can take it an unlimited number of times during that interval.** While you could complete them by referencing class materials, you are **encouraged to take them in closed-book mode (at least the first try)** to maximize the value of these quizzes, which I regard as learning tools to tell you where you are with course material. **Answers will be available right after the due date/time for submission.** The quizzes will then remain available for review prior to exams. There are a total of 9 quizzes (2 points each = 18 points). 2 points also awarded for attending the first X-hour (see above).

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 (Piazza) 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 or equal to 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.** There are no pre-determined “cut-offs”, save that everyone who earns at least 90% of possible points (180 points possible) 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 <https://student-affairs.dartmouth.edu/policy/academic-honor-principle> 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 (save one), 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. Sign-up is just for me to know how many folks might be coming & what demand is for scheduling purposes; **you can ALWAYS just walk-in!** *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!! I would like to be able to help you (or discuss) “non-course business” or simply to get to know you better. 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**, Magdalena Raska ‘20 and Sophia Jacobi ‘21, 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, will hold a weekly Sunday evening study group and will be available for one-on-one tutoring. 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 weekly to identify the “muddy” areas of confusion that we might need to go over again to teach it more effectively and that could be incorporated into their weekly study group.

7. Our **course web site** uses **Canvas** as the learning management tool (<http://canvas.dartmouth.edu>). **On Day One of the course, please set up your profile/e-mail contact information, as I will be using this mode to communicate with you during the course (click on ‘Account’ in sidebar; then both ‘Profile’ and ‘Settings’.** Also set up **Piazza** account if you haven’t for another course (click on **Piazza** in course menu and follow instructions (see also following document). You will need to choose a password, though you will never have to use it if you access **Piazza** through **Canvas**. **DO NOT USE your Dartmouth NetID as your password.** It is **IMPORTANT** that you follow the instructions given to avoid **Piazza** distributing your contact info to others.

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 information 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 in the 'Presentation' mode (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** 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. 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. **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).*). **I also encourage all to reach out to the Teaching Science Fellows** who can help you "learn how to learn science" aside from Bio2 course-specific information. E-mail them to set up an appointment (office: 123 LSC) (Miranda.Greig.19@dartmouth.edu, Alice.Hsu.19@dartmouth.edu)

10. Students with disabilities, including chronic diseases, learning/performance challenges, and/or mental health issues 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.

Students requiring disability-related academic adjustments and services must consult the Student Accessibility Services office in Carson Hall 125 or by phone: 646-9900 or email: Student.Accessibility.Services@Dartmouth.edu.

Once SAS has authorized services, students must show the originally signed SAS Services and Consent Form and/or a letter on SAS letterhead to me. As a first step, if you have questions about whether you qualify to receive academic adjustments and services, you should contact the SAS office. All inquiries and discussions will remain confidential. They are great people to work with and can be so helpful as you embark on the challenges of the Dartmouth curriculum!

11. 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.

12. I recognize that the academic environment at Dartmouth is challenging, that our terms are intensive, and that classes are not the only demanding part of your life. There are a number of resources available to you on campus to support your **wellness**, including: your undergraduate dean (<http://www.dartmouth.edu/~upperde/>), Counseling and Human Development (<http://www.dartmouth.edu/~chd/>), and the Student Wellness Center (<http://www.dartmouth.edu/~healthed/>). **I encourage you to use these resources and come speak with me in order to take care of yourself throughout the term.**

13. At Dartmouth, I/we value integrity, responsibility, and respect for the rights and interests of others, all central to our Principles of Community. I/we are dedicated to establishing and maintaining a safe and inclusive campus where all have equal access to the educational and employment opportunities Dartmouth offers. I/we strive to promote an environment of sexual respect, safety, and well-being. In its policies and standards, Dartmouth demonstrates unequivocally that sexual assault, gender-based harassment, domestic violence, dating violence, and stalking are not tolerated in our community.

The Sexual Respect Website (sexual-respect.dartmouth.edu) provides a wealth of information on your rights and obligations with regard to sexual respect and resources that are available to all in our community. **As a faculty member, I am obligated to share disclosures made to me regarding conduct under Title IX with Dartmouth's Title IX Coordinator.** Confidential resources are also available, and include licensed medical or counseling professionals (e.g., a licensed psychologist), staff members of organizations recognized as rape crisis centers under state law (such as WISE), and ordained clergy (see <https://sexual-respect.dartmouth.edu/reporting-support/all-resources/confidential-resources>).

Should you have any questions, please feel free to contact Dartmouth's Title IX Coordinator (Kristi.Clemens@Dartmouth.edu) (and deputies if appropriate).

14. **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. The materials I am supplying you (lecture notes, lecture PP slides, summary slides, Echo360 recordings, study tips, practice quizzes, old exams) are adequate for your success in the course.