

BIOS E-102: Newsworthy Topics in Contemporary Life Sciences
Spring 2016

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Meeting Times:	Tuesday 7:40-9:40pm Byerly Hall, Room 013	
Office Hours:	by appointment	
Description:	Scientists constantly make groundbreaking discoveries, some of which receive attention by the press. This course, designed for non-scientists, provides the scientific background to appreciate these reports more fully. We will discuss three exciting topics in the life sciences: stem cells, cancer, and infectious disease.	
Grading:	Midterm Exam	10%
	Problem Sets (3)	30%
	Research Paper	25%
	Class Participation	15% (involves mandatory weekly online discussion post)
	Final Exam	20%
	Note: Paper assignments will differ based on whether the course is taken for undergraduate or graduate credit.	
Course Website:	https://canvas.harvard.edu/courses/8346	

Readings: *The Stem Cell Hope: How Stem Cell Medicine Can Change Our Lives*
Alice Park
ISBN #978-1594630781

The Emperor of All Maladies: A Biography of Cancer
Siddhartha Mukherjee
ISBN #978-1594630781

And the Band Played On: Politics, People, and the AIDS Epidemic
Randy Shilts
ISBN #978-0312374631

Other readings will be posted on the course website.

Of note, some of the readings discuss mature themes.

<u>Meeting</u>	<u>Date</u>	<u>Title</u>
1	1/26	Introduction <i>Logistics; What Makes For Newsworthy Science?</i> Stem Cells I <i>Biology of Stem Cells</i>
2	2/2	Stem Cells II <i>Scientific Discussion of Reports</i>
3	2/9	Stem Cells III <i>Book Discussion – The Stem Cell Hope</i> PROBLEM SET #1 DUE
4	2/16	Stem Cells IV <i>Media Representation</i>
5	2/23	Cancer I <i>Biology of Cancer</i>
6	3/1	Cancer II <i>Scientific Discussion of Reports</i>
7	3/8	Cancer III <i>Book Discussion – The Emperor of All Maladies</i> PROBLEM SET #2 DUE
	3/15	SPRING BREAK

8	3/22	MIDTERM EXAM <i>(covering Meetings 1-7)</i>
9	3/29	Cancer IV <i>Media Representation</i>
10	4/5	Infectious Disease I <i>Biology of Infectious Disease</i>
11	4/12	Infectious Disease II <i>Scientific Discussion of Reports</i>
12	4/19	Infectious Disease III <i>Book Discussion – And the Band Played On</i> PROBLEM SET #3 DUE
13	4/26	Infectious Disease IV <i>Media Representation</i>
14	5/3	Discussion PAPER DUE
15	5/10	FINAL EXAM <i>(comprehensive with an emphasis on Meetings 10-14)</i>

Noteworthy Dates:

Monday, 2/1	Deadline for course and credit status changes Deadline to drop the course with 100% tuition refund
Monday, 2/8	Deadline to drop the course with 50% tuition refund
Friday, 4/22	Deadline to withdraw with WD/WN grade on record

General Advice and Requirements:

The following advice will be particularly helpful if this is your first Harvard Extension School course or distance course:

The standard to which students are held in this course is high. I will assume that you are here to be challenged, to gain new knowledge, and to ratchet up your close reading, writing, and analytical skills; as a result, I expect that you are prepared to put in the time and effort that will accomplish those goals.

Distance students should approach the course in the same organized fashion that they would if they were coming to class each week, at a designated time, with the readings prepared and written work ready to submit. In other words, they should set themselves a schedule and stick to it as closely as possible. Lectures should be watched without interruption by other duties or activities in a quiet setting. A haphazard approach will lead to a poor performance. Do not let yourself fall behind in viewing the lectures or doing the readings and other assignments. “Catching up” will be a frustrating and largely fruitless exercise.

A good piece of advice I’ve heard experienced distance students give is: “Start talking with your TAs right away; introduce yourself via email or telephone, so that you feel comfortable emailing with questions or comments throughout the semester.” Even though you may not be able to attend the “live” class, remember that your TAs will be available to talk with you, answer your questions via email, and discuss any other concerns you may have. I will also be available to answer your questions.

SETTING YOURSELF UP FOR THE DISTANCE COURSE:

Be sure to consult the Extension School’s distance education website, well before the course begins, to make sure that you have the technical requirements in place for successfully viewing the videos. Out-of-date computers and unreliable dial-up connections will be problematic. It’s also a good idea, if this is your first distance course, to take a look at the websites below so that you’ll know what to expect:

<http://www.extension.harvard.edu/academics/courses/types-courses>

<http://www.extension.harvard.edu/resources-policies/exams-grades-transcripts/exams-online-courses>

We will not have proctored exams in this course. The exams will be completed and submitted online. Trial exams will be available prior to the actual exams to make sure you have the correct computer requirements.

In the past, some students have failed to consult the course website and syllabus until later in the semester. We strongly advise against this approach. Class participation begins with the first lecture and failure to participate actively in the course from the beginning will directly impact your participation grade for the course.

WEEKLY PREPARATIONS:

As stated above, students are expected to carefully read the weekly articles on the syllabus prior to each class. You will be reading scientific papers and newspaper / journal reports, so you should carefully plan how you will devote time each day to completing each assignment in order to be successful. Each week in class, I shall lecture for a portion of the evening, but discussion and comments from students are welcome and expected. Always bring questions that you have about the readings to class or post them on the course website’s discussion board. You can also email your TAs or me directly with your questions. I will make every effort to address them in class. The weekly lectures will usually be posted 24 hours after the Thursday

class. **You will need your Harvard ID and PIN in order to login to each lecture and to access protected course materials after the second week of classes. The login link is in the upper-right corner of the main page of the course website. Only registered students will have access.**

ATTENDANCE, SUBMISSION OF WORK:

Local students are **strongly** encouraged to attend class. Why? Because I *like* the interaction with you, I'm interested in your responses to the readings, and I enjoy hearing you respond to each other's comments in real time. (Our distance students also like hearing your comments during class.) This is likewise the best way to get to know your fellow students. The distance option can be a great convenience if you must miss a live class — you never have to miss a single lecture, and you can always go back and review a lecture you've already seen. But especially in this course, I hope to have spirited discussions with you about exciting topics in science and the way they are covered in the media.

Distance students watching the lectures live will be able to participate in the online chat room, where you can ask questions in real time during the lecture. I realize that, for many of you, attending or watching class live is not an option. In addition to the live broadcast, a video of each class will be posted on the website each Friday for you to view at your convenience.

All written work must be submitted on time. Weekly discussion posts, the problem set, paper and the exams cannot be made up. Because of their format, exams also cannot be taken earlier. If you are “on the road” when it's time to take an exam, you should be prepared to find a block of time to complete it on your laptop. Alternatively, you can locate an internet café or business center during the exam period if you don't want to lose those points.

Please make your work and vacation plans with all assignment due dates in mind. Discussion posts, the problem set, paper, and exams cannot be given out earlier or handed in later because of conflicting work or vacation schedules. Everything is listed on the syllabus so you can plan around this schedule.

Technical failures will not suffice as an explanation for work not submitted. Work must be submitted through the course website in the time allowed. Back up your work so that if your computer crashes, you can go to an internet café or some other such place and submit your work from there. Work emailed to me or the TAs is not accepted; email tends to be an unreliable means for submissions.

COURSE WEBSITE:

You are expected to consult the course website each week. Announcements, handouts, and interesting ancillary materials will be added frequently.

All students are required to participate in the class discussion component of the course by posting a weekly response on the discussion board after every lecture (postings must be submitted by the following Monday at 5pm). The weekly response is an opportunity to discuss

particular points of interest from the class, raise pertinent questions, and comment on other class members' postings. The weekly response should be no longer than 1 page, double-spaced, and can be posted directly into the form field of the discussion board. You should read some of your classmates' postings and comment on them as well.

When commenting in both the course chat room and on the discussion board, please keep these guidelines in mind:

- Be respectful and courteous. Debate is encouraged, but it should always be conducted in the spirit of academic discourse.
- Comments should serve to build and continue the conversation. The board is not intended as a forum for airing personal likes and dislikes (as in, "Did anyone hate this paper as much as I did?") or for discussing things outside the purview of our course (as in, "Has anyone heard whether Professor Smith's course is very difficult?" or "Would you like to go out with me on Saturday night?").
- If you strongly agree / disagree, tell the class why you feel that way, don't just write, "I agree with Jane Doe".
- Anonymous comments are not allowed.
- Please refrain from the use of profanity.

Also, please limit the length of your comments; the discussion board is meant to be shared, not dominated by one or two voices. The bottom line: the board should be a forum for serious academic discourse.

I encourage all of you to post a photo of yourselves on the class facebook, which can be found on the course website once the semester begins. Degree candidates at Harvard Extension will automatically have their ID photos posted.

******Since I will communicate with you from time to time via email as well, please be sure that your spam-catcher will allow you to receive emails from the TAs and me without blocking them. Also, kindly double-check your email address on file with the Harvard Extension School to ensure it is accurate. When I send out group emails to the class, I must use the list that is in our computer system. This is especially important for the students taking the course for credit, who may receive special instructions about required assignments. If you do not have an email address, you will need to obtain one and then notify the Extension School of it so that it will be added to the class email list.***

ADDITIONAL REQUIREMENTS FOR GRADUATE STUDENTS:

The term paper for graduate students will be more extensive than that for undergraduates. Graduate students' work will be expected to demonstrate a higher level of mastery of the subject matter, evidence of independent thinking, and superior writing skills.

PLAGIARISM AND CHEATING:

All written work must be the student's own. Students may discuss work with others, but should be sure to write everything in their own words. Students also may not copy writings from textbooks, journals, or lab protocols without paraphrasing and proper citations. Plagiarism is a very serious offense.

Exams must be taken individually; no collaboration is allowed.

Anyone caught plagiarizing or cheating will be disciplined, and may be sent before the Administration Board or expelled from the course.

You can read more about Academic Integrity on the following Extension School website:

<http://www.extension.harvard.edu/resources-policies/resources/tips-avoid-plagiarism>

SCIENCE COVERAGE:

Some students are surprised at the degree of science coverage discussed in the course. Please be aware that we will discuss both scientific and media components, meaning that many lectures during the term will be focused exclusively on the science behind the topics of stem cell biology, cancer, and HIV.