

Semester: **Spring 2017**
Course Number: **10:832:405:90**
Course Title: **Cancer & Society**
Course Day and Time: **Online**
Location: Our class website is on **eCollege**
Course Instructor: **Amy Abruzzi, PhD, MPH**
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Join me on *LinkedIn*



When you email me, please specify "Cancer and Society" in your message to facilitate my reply

Office Hours and Location: Daily by phone, 2-6 PM (215 499 1809) or via email (anytime). I am also happy to talk with you through Facetime, by prior arrangement. Finally, my on campus office hours are usually on Thursdays from 1-3 PM in Bloustein, Room 564, but look for a weekly email should there be any change in this or if you wish to schedule another time by prior arrangement.

Course Web Site: <http://eCollege.Rutgers.edu>

For 24/7 technical support: Email help@ecollege.rutgers.edu or call: 877-778-8437

Course Description:

The goal of this course is to give students a broad understanding of cancer from a public health perspective, and draws from the sub-fields of epidemiology, biomedicine, and health planning and policy. The first half of the course explores the *who, what, when* and *where* of cancer. This section contains lectures providing a global perspective on the magnitude and burden of cancer, with special attention given to the pattern and distribution of disease in U.S. subpopulations. It also contains information on the basic biology of the disease. Surveillance, screening and cancer survivorship are also addressed in this section. The second half of the course examines the *how* and *why* of cancer. This section includes lectures on risk factors associated with specific cancers, such as genetics, hormones, tobacco and alcohol use, as well as the role of oncogenes in carcinogenesis. Information on specific cancers relevant to that week's lecture or discussion are presented throughout the entire semester.

Method of instruction:

This online course is run as a group independent study with common deadlines. What does that mean? It means that within a certain specified time period (usually a week), you work through the material at your own pace, with my support. Other than meeting my deadlines, there are no preset times you need to be online. You also get to select which readings you do in the discussion room, and so in that sense get to

customize the course to your interests. You are also expected to lead a discussion, which includes finding a short video or news item on a key topic, when it's your turn. There are no pre-taped lectures; rather, I prefer to provide detailed lecture notes and other support materials, and large blocks of time I am available by phone or Facetime every week to discuss things. I also encourage you to visit me on campus if you prefer to meet in person. Look for a weekly "when I'm available" email or contact me directly for on campus meeting times.

Recommended Texts: key readings (articles) are provided each week

Expected Learning Outcomes

By the end of this course, students will:

- Be able to discuss cancer as a complex group of diseases that are both multi-causal and multi-factorial in nature;
- Have gained an in depth knowledge of the biology, epidemiology and public health approaches to the prevention and control of specific cancers, and their implications for policy and planning;
- Understand the social and historical context of landmark epidemiologic studies, biomedical research and policy initiatives on cancer in the U.S.;
- Be able to critically evaluate both mass media and scholarly/professional reports on cancer prevention and treatment;
- Be able to explain why, to quote Siddhartha Mukherjee, "There's no free lunch in medicine" and "Prevention is the Cure", and to understand the implications of these statements for public health policy and practice.

Course Outline by Week. For more details and key readings, see our eCollege course site:

Unless otherwise indicated weeks start on Thursdays	Lecture Notes, Key Topics & Exam Schedule <i>Materials will be posted to eCollege prior to the week you are responsible for the information</i>	Required from you this week Unless otherwise indicated, all work must be submitted by 11:59 PM on Thursdays on the dates you see below
Week 1, Starts 1/19	<u>Unit 1 begins</u> Lecture 1: Global burden of Cancer <u>Key topics:</u> Basic terms; Geography of cancer; Cancer incidence and survival in US since 1930; Global comparisons – issues and patterns	<ul style="list-style-type: none"> • Introduce yourself • Syllabus Review Quiz (7 points) • Due by 11:59 PM on Thursday 2/26
Week 2, Starts 1/26	Lecture 2: Biology of the Cancer Cell <u>Key topics:</u> Pathology of cancer; Degree of differentiation and tumor grade;	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Sign up to Lead a discussion • Due by 11:59 PM on Thursday 2/2

	Metastasis; benign vs malignant tumors; Diagnosis; Cancer staging	
Week 3, Starts 2/2	<p>Lecture 3: Childhood Cancers</p> <p><u>Key topics:</u> Cancers and age; Childhood vs. adult cancers; Patterns by sex, age and race/ethnicity; Survival issues; Etiology and risk factors; Cancer clusters</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in Discussion (5 points) • Due by 11:59 PM on Thursday 2/9
Week 4, Starts 2/9	<p>Lecture 4: Cancer Survivorship</p> <p><u>Key topics:</u> Major changes/advances in U.S. cancer survival since 1900; Cancer survivorship movement; Cancer recurrence, long-term and late effects, second primary cancers; Age and survivorship, including comorbidities and polypharmacy</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 2/16
Week 5, Starts 2/16	<p>Lecture 5: Cancer Screening</p> <p><u>Key topics:</u> Basic principles; Evaluation issues; Prevalence and predictive value; Limitations; Current recommendations and controversies</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 2/23
Week 6, Starts 2/23	<p>Lecture 6: Disparities and Cancer</p> <p><u>Key topics:</u> National goals; Issues in making comparisons and setting goals; Incidence vs. mortality; Socioeconomic status; Key differences between U.S. race/ethnic groups in the distribution of common cancers</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 3/2
Week 7 Starts 3/2	TIMED EXAM on Unit 1, including Lectures 1-6 (135 points), with Midterm research essay (35 points)	<ul style="list-style-type: none"> • Exam must be taken and submit your essay by 11:59 PM on Thursday 3/9
	Spring Break – March 11-18 th	<ul style="list-style-type: none"> • Nothing due- rest and relax!
Week 8, Starts Sunday 3/19*	<p><u>Unit 2 begins</u></p> <p>Lecture 7: Occupation, tobacco and cancer</p> <p><u>Key topics:</u> Overview of occupational causes of cancer; IARC and classification scheme; High risk</p>	<ul style="list-style-type: none"> • <u>Be sure to:</u> • Participate in Student Discussion (5 points) • This is a short week so there is no untimed quiz. Questions on Lecture 7 are included in next week's untimed quiz, which will open early

	populations; Study designs and issues; Occupational cancer clusters; Carcinogenic properties of tobacco; Global issues in tobacco; Synergy	<ul style="list-style-type: none"> • Due by 11:59 PM on Thursday 3/23
Week 9, Starts 3/23	<p>Lecture 8: Infectious agents</p> <p>Key topics: Types of organisms and their associated cancers; Latency, host factors, strains, geographic distributions; Key agents including Focus on HBV, HCV, HPV, H Pylori, Schistosoma, Clonorchis and Opisthorchis</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 3/30
Week 10, Starts 3/30	<p><i>Final research essay assigned</i></p> <p>Lecture 9: Diet, alcohol, obesity and cancer</p> <p><u>Key topics:</u> Study design issues with studying dietary risk factors; Major findings for key food items; Global issues in food associated cancer risk; Evidence for alcohol as a risk factor for cancer; Breast cancer and alcohol; Obesity and cancer; Prevention strategies</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 4/6
Week 11, Starts 4/6	<p>Lecture 10: Genetics, Oncogenes the mechanisms of carcinogenesis</p> <p><u>Key topics:</u> Key terms and concepts; Genetic polymorphisms vs. germline mutation; Mendelian diseases; Penetrance and risk; Gene-environment interactions; Basic mechanism of carcinogenesis and key terms; The hallmarks of cancer</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 4/13
Week 12, Starts 4/13	<p>Lecture 11: Hormonal factors</p> <p><u>Key topics:</u> Endogenous vs. exogenous hormones; Sex steroid hormones and risk; Endogenous hormonal risk and</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 4/20

	cancer; Role of genetic mutations, receptor status; Exogenous hormones and risk (HRT, oral contraceptives)	
Week 13, Starts 4/20	<p>Lecture 12: Radiation and Cancer</p> <p><u>Key topics:</u> Ionizing vs. non-ionizing radiation; Sources and related cancer risks; Solar radiation and skin cancer; Solar sources of Vitamin D and cancer prevention, and associated factors</p>	<ul style="list-style-type: none"> • Lecture Questions (untimed quiz, 9 points) • Participate in discussion (5 points) • Due by 11:59 PM on Thursday 4/27
Week 14, Starts 4/27	<p>EXAM on Unit 2, including Lectures 8-12, with select concepts from Lectures 1-7 (135 points); and Final research essay (40 points)</p>	<ul style="list-style-type: none"> • You must take the exam by 11:59 PM on Thursday 5/4
	<p><i>For Add Drop dates, see the Office of Academic Services:</i> http://sasundergrad.rutgers.edu/academics/registration/index.html</p> <p><i>The Academic Calendar is available from the Registrar at:</i> http://scheduling.rutgers.edu/calendar.shtml</p>	

Course Assessment and Grading:

The course is based on a total of 500 points as follows:

- ◆ Two timed online exams, each worth 135 points = 270 points total
- ◆ Midterm (35 points) and final research essays (40 points) = 75 points
- ◆ Syllabus review quiz = 7 points
- ◆ Ten online untimed quizzes, each worth 9 points = 90 points total
- ◆ Student discussion forum = 58 points total, including:
 - Weekly response to a posting, 10 @5 points per week (50 points)
 - Leading one discussion, which includes posting a relevant news with questions (8 points)

Grading is based on the timely and correct submission of all assignments, and both in class and online participation.

Final Grade cut-points:

Use caution when viewing your rolling average in eCollege. Remember, how you do on an untimed quiz is may not be a good indicator of how you will do on a timed, comprehensive exam.

Your final grade for this class will be assigned using this system:

A: 455 to 500 points (91 – 100 %)

B+:	430 to 454.9 points (86 – 90.9 %)
B:	400 to 429.9 points (80 – 85.9 %)
C+:	380 to 399.9 points (76 – 79.9 %)
C:	350 to 379.9 points (70 – 75.9 %)
D:	300 to 349.9 points (60 – 69.9 %)
F:	299.9 or less points (59.9 % or lower)

I automatically round up to the next grade when you are within 0.5 points of the next cut-point. So, an average of 429.5 = 430 points = B+. Note: this refers to the point count, not the percent average!

Guidelines for Assignments and Projects

Students are expected to work independently on all timed exams and short reply questions, discussion room postings, and syllabus review quiz. Failure to do so will be considered a violation of Rutgers' Academic Integrity Policy. (See below for details).

This class is divided into two units, each covering six lectures with 5 untimed quizzes and discussions. There are two timed exams, each covering the lectures, key readings and concepts from that portion of the course. The second exam contains some select concepts from the first half of the course, but you will be informed of these in advance. In addition, there are two research essays due with each unit exam. **The deadlines for most assignments are followed by a 48 hour penalty period during which time you can still submit work for a 10% deduction.**

Syllabus Review quiz (7 points)

A short, untimed quiz on the syllabus will be administered during the first week of class. This is to ensure that students understand the most important deadlines and other requirements for the course.

Timed Exams (2 @ 135 points, 270 points total)

Two **timed** exams will be given online and need to be completed within the time window assigned (typically, 1 hour, 30 minutes). These tests are largely a combination of true and false, multiple choice, matching and include calculations similar to the online quizzes. **Like the quizzes, each student's exam is a random mix of questions that are presented to you one at a time.** While you are able to page back through and answer unfinished questions, there is not adequate time for you to look up answers while the exam is in progress. *Prepare for it as you would any in-class exam and use your time wisely.* As you will see on the schedule, you can determine when you take the exams within a multi-day period. **Pausing a timed exam once in progress is not possible.** Make sure you have a stable internet connection and your browser is compatible. If you have any doubts about your browser, please contact the eCollege help desk PRIOR to starting the exam. Questions on the exams that are skipped or left blank will register as a zero towards the score you receive. In order to give you greater support during exam, **I will be "on call" for large blocks of time during exam days, and I strongly encourage you to take the exam during one of these blocks.** That way, if you need clarification on a question or experience a problem with the internet, you can call me immediately BEFORE exiting the exam!! **Taking the exam after the scheduled deadline during the 48 hour penalty period carries up to a 10% penalty. In addition, make-up exams (retakes) are only given under extreme situations including technical failure and also carry a 10% penalty.** Please note: technical failure due to documented eCollege/Rutgers CAS issues are exempt from penalty. Also, please note

that due to end of semester grading pressures, the usual 48 hour penalty period extension on the second timed exam may not be possible.

Mid-semester (35 points) and Final research essays (40 points), together 75 points total

Two research essays of approximately 5-6 pages are required in the course. The first one will focus on survivorship issues and the second one on a cancer prevention. Guidelines will be assigned at least three weeks in advance of the deadline so you have adequate time to research and compose your answers. Please see the course schedule for due dates. **Late work carries a penalty (up to 10%) and will not be accepted after the 48 hour penalty period.**

Untimed quizzes (10@9 points each, worth 90 points total)

Ten untimed, online quizzes will become available to you on our eCollege course site on the day it is assigned. Typically, each quiz contains 8 or 9 questions, which are worth a point or two each. Quizzes may be worked on for an unlimited amount of time before the due date and of course you are expected to use your notes. Do not skip questions as they will register as a zero towards your score. Your score and the correct answers to the quiz will be available in the gradebook two days after the quiz closes. **There is a penalty (up to 10%) for taking a Quiz during the 48 hour penalty period following the scheduled closed date, which is available for all quizzes except those immediately preceding a timed exam. It is not possible to take a quiz after the penalty period ends and no make-ups for missed quizzes. I will, however, drop your lowest (including a missed) untimed quiz (worth 10 points). This is done by adding a perfect score in its place, which is mathematically more favorable to you than simply omitting the points from your average.**

General Guidelines for Participating in Student Discussions:

You are expected to participate in discussion. To do this, Two things are require. First, pick the reading and question that interests you most and follow the rules below for your main reply. Second, post a brief but thoughtful response to another student's reply. It need not be in the same thread. Note: this needs to be done as a separate posting - don't combine it into one! Late work carries a penalty (up to 10%) and will not be accepted more than 2 days after the scheduled due date.

Grading policy for online discussion responses:

- ◆ 5 points (full credit): participates fully in the discussion during that week, e.g., responds thoughtfully and thoroughly each week to at least one news item; uses data to support opinions; raises new questions and relates the material to the lectures. (**Your main reply**, typically, two good paragraphs). Also, provides a thoughtful, separate reply to another student's comments (**your second positing**, typically, 3 or 4 sentences).
- ◆ 1-4.9 points (partial credit): participates a little, e.g., makes a few general comments or simply states opinion without reference to specific readings or lecture notes; Fails to respond to another student's posting.
- ◆ 0 points (no credit): doesn't participate at all; participates but plagiarizes from sources, such as cutting and pasting from web sites, journal articles, other student work, etc.

Remember, your posting **must be in your own words**. BE SURE TO ENCLOSE ALL QUOTES IN PARENTHESES (“ ”) AND GIVE SOURCES YOU CONSULT PROPER CREDIT!

Leading a student discussion (up to 8 points total)

Students are asked to sign up for a week to lead the discussion. In order to do this, you first need to **locate an interesting article** or video that relates to the key topic and **questions for discussion**. You may find it helpful to select something from the reading room, if you like. **You are also expected to reply to your discussion thread at the end of the week. Your postings are** graded separately for **content** as well as **timeliness**. In order to be considered for full credit, you must have your article and questions posted anytime on the first day of the discussion week (i.e. **Thursday**) you signed up for. In the rare event that two students select the exact same news article, I will ask the second person to post an alternative. I encourage you to check with each other so as to avoid duplication! *In addition, you automatically get credit for participating the week you lead, so in effect this activity is worth 13 points.*

Grading policy when leading a discussion:

Timeliness (4 points)

- ◆ 4 points (full credit): posts link to short article or video with your discussion questions to the website on or by beginning the discussion week.
- ◆ 1-3.9 points (partial credit): deduct a point for posting link and questions after the start of the discussion week.
- ◆ 0 points (no credit): fails to post any link or questions within 4 days of the start of the discussion week, or plagiarizes from other work.

Content (up to 4 points)

- ◆ 4 points (full credit): posts an interesting news item along with questions that encourages a response based on the item; content and questions is related to key topics and attempt to bridge the reading with the course material; responds to student comments at end of discussion week.
- ◆ 1-3.9 points (partial credit): posts questions that ramble or are generally unclear and/or seeks student opinion without reference to the news item.
- ◆ 0 points (no credit): fails to post any link or questions; plagiarizes from other sources or other student work.

Academic Integrity

Academic Integrity is vital to the mission of Rutgers, to education at Rutgers and membership in the Rutgers community. It is a core value that supports trust among students, and between students and teachers. It is also a shared value; administration, faculty and students each play a vital part in promoting, securing and nurturing it.

Academic dishonesty is not an individual act that affects only the students involved. It violates communal trust, impacts other members of the community, and is an offense against scholarship. For this reason, any instance of cheating or plagiarism will be dealt with harshly.

Honesty matters. As a shared value, administration, faculty and students each play a vital part in promoting, securing and nurturing it. See the Rutgers Academic Code and Academic Oath at:

<http://academicintegrity.rutgers.edu/>

Disaster Plan

During cyberattacks and other disasters affecting the campus network, eCollege sets up an alternative access for students so that we may complete the semester as planned. In the event that Rutgers CAS experiences an interruption of service this semester, please make sure you have:

- Access to the internet outside of Rutgers University (such as through an off campus friend or family member. It is also freely available at Panera, Starbucks, and the public library)
- You may also need access to a laptop or other fully functional computer device that allows you to get online outside of Rutgers CAS. Mobile devices such as iPhones or tablets may not be enough to complete all assignments, including exams.

In addition, please look for an email from me during the first week of class, instructing you how to best provide me with your cell phone or a non-Rutgers email.

Students with Disabilities:

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>. **Please notify me as soon as possible if you are in the process of obtaining documentation and turn your paperwork in to me at least two weeks prior to the first exam.**

Privacy statement:

The course web site may contain student information that is protected by the Family Educational Rights to Privacy Act (FERPA). Disclosure to unauthorized parties violates the federal privacy laws. Email sent via our course website may make student names and email addresses visible to other students in class. Please remember that this information is protected by these federal privacy laws and must not be shared with anyone outside of class.