Overview. How healthy you are depends on far more than your genes, or the decisions that you make about your health. Where you grow up, who your family are, where you live, and who you know also play important roles in your well-being. Yet many of these characteristics change throughout your life, and early events can have important effects later in your life. This course provides an introduction to social determinants of health and how they matter throughout the lifecourse, with a special focus given to stages of human development and transitions between stages. In this course we will explore the following Qs:

- What are social determinants of health, and where do health disparities come from? How does where you live affect your health? How does who you know shape your health? How does one’s social status matter? How does the social world interact with our genetics to shape health?
- How might circumstances and events early in life shape later-life health outcomes? How is health transmitted between generations within a family? Which social factors matter most to our health when we’re young? When we’re older? What kinds of health risks are associated with life transitions? Are there periods of the life course that are more consequential to health than others?

Goal: You should leave this course with an ability to think critically about how one’s health may be shaped by a mix of social and biological circumstances, and to question how one’s health could be related to the health of others. An equally important goal is to help develop skills that will transfer beyond this course: a) evaluating the quality of evidence, b) interpreting data in many forms, and c) writing.

Grading. This course uses Moodle to facilitate active learning, and it will reward consistent engagement with the material and with your classmates. Letter grades will be used (A: 93-100, A–: 90-92.9, B+: 87-89.9, B: 83-86.9; B–: 80-82.9; C+: 77-79.9; C: 73-76.9; C–: 70-72.9; D+: 67-69.9, D: 60-66.9, F: 0-59.9). There are multiple ways to do well; the grade composition consists of: 20% response papers; 20% in-class (Part 1) exam; 10% in-class (Part 2) quiz, 20% final paper; 15% active attendance; 15% peer engagement. For all assignments, a full letter grade will be deducted for every day the assignment is turned in late. There is no grading curve for this course.

Prerequisites. You are expected to come to class having read the material. There are no formal prereqs besides an active curiosity for the topics; a willingness to read material across the social sciences, public health, and medicine; and a willingness to engage with data presented in a variety of ways. We’ll encounter a variety of data tables, graphs, and diverse kinds of qualitative and quantitative analytic methods, but this is *not* a statistics course. I’m more interested in you taking away the larger lessons from a paper than you being able to recall the particular statistical models used to make conclusions. That said...

Brief check-in. Every student is required to sign up for a 10-minute office hour meeting with me during the first 2 weeks. This is a small class – we’ll all get to know each other. You’ll learn that I take my job as a teacher very seriously. It helps me if I know more about your interests in the course material, and if there are ways that I can help you learn. (Pro tip: it helps you too. It’s easier for professors who know more about their students than a name & face to write letters of recommendation for them. Think ahead.)
Readings. 75% of course materials are primary-source (original) scientific journal articles, and a few short films. The course material is challenging but rewarding – staying on top of the readings and engaging in class will help you get the most out of class. PDFs of readings and links to the films are available on Moodle. I’ve aggregated the .pdfs into “Part 1” and “Part 2/3” compilation so that you can easily bring it to a vendor to print out a coursepack if you wish. I strongly encourage printing these out (rather than reading it on your computer) because we’ll often discuss these in class, and you may benefit from marking up your copy.

We will also read several chapters from Atul Gawande’s “Being Mortal” throughout the term. PLEASE ORDER THIS EARLY.

What I expect of you:

Active attendance (15%). Showing up is mandatory, but unless you participate in class, you won’t get full credit for being there. Each student is allowed one absence, no reason necessary. Get in touch if you have extenuating circumstances, and we’ll work together to find a solution.

Peer engagement (15%). This will happen in several ways: (a) Each student will participate in two small group assignments to be detailed during class (one during “part 1”, one during “part 2”); (b) Each student will be randomly assigned to be part of a peer writing group that will critique each other’s final paper proposal to help improve it prior to submission.

Short response papers (20%). There will be 2 of these due through Moodle throughout the term, at times of your choosing (*1st no later than Sept. 22 at 5pm; 2nd no later than October 27 at 5pm.) A well-written response paper will critically engage with the themes introduced in a given week’s readings, advance an argument, and support it with evidence from the course material. Length should be no more than 800 words (i.e. 3-4p double-spaced, 12pt font). I will provide more guidelines on grading criteria.

In-class “Class Part 1” midterm (20%). This 70-minute in-class exam on October 12 will be a combination of short-answer and an essay question intended to test your grasp of key ideas from the 1st part of the term. Note: I write a brand-new exam every term.

In-class “Class Part 2” quiz (10%). This 30-minute in-class exam on November 27 will be multiple-choice only, and is intended to test your grasp of key ideas from the 2nd part of the term.

Final research paper (20%). This research paper can be on a topic of *your choice*. The goal is for you to gain a better practical understanding of some health condition or disease outcome that you’re interested in, and to gather evidence as to how social and biological factors may play into how an individual or population experiences that condition. Paper length should be between 8-10 pp. double-spaced, 12pt font, and the paper should probe how the condition you choose is affected by social and biological forces during at least two life course stages, if not the entire life-course. You should augment whatever course readings you choose as sources with 4-6 additional sources related to your chosen topic. A ~300-word paper proposal is due to me via Moodle no later than November 17 (Fri) at 5pm. Additional guidelines will be distributed in class. The final paper is due no later than December 18 (Mon) at 12n.

Class norms: I have a no technology in class policy – this means no laptops, tablets, phones, etc. I’ve designed our sessions together as interactive, discussion-based lectures. It sounds old-fashioned, but taking notes, asking questions, and reviewing notes in preparation for exams are the best predictors of deep learning in college coursework. I’m happy to point out numerous pieces of research that show this.
What you should expect from me:

*To help co-create a constructive learning environment*. This means being knowledgeable, prepared, and willing to puzzle through questions prompted by the material. It means helping us to take stock of where we’ve been each week, and where we’re headed the following week. It also means being as responsive to your concerns as I can be.

*To be available to you outside of class*. I’ll take a poll in class as to the best times for office hours and I’ll set that time according to what works best for your schedules. *This is because I want these office hours to be helpful for you*. You can email, call, or stop by my office. If you email, you can usually expect a response within 24h. I check email about 2x/day during the week.

*To be transparent and clear about how you are being evaluated during the term*. I want you to be apprised at all times about how you’re doing in the class. This syllabus gives you an overview of how your grade is calculated. I will be providing additional grading rubrics for response papers, and the final paper as handouts during the semester. You can check your grade at any time on the Moodle website, or email me. I will also post a grade calculator spreadsheet in the “class documents” folder on Moodle so you can forecast what your grade will be if you were to get a [X] grade on assignment [Y].
Part I: Health in social context

Week 1. Overview & life-course perspective (Sept. 5 & 7)
The first lecture will give an overview of the course. What do we mean when we say “the life course”? Are there phases that are more important than others? What is a “sensitive period” or “critical window”? What are some of the major theories about how early-life conditions are linked to later-life health status?

For Tuesday: no preparation necessary.

For Thursday:
- Video: “How childhood trauma affects health across a lifetime.” Nadine Burke Harris, TedTalk. (Moodle)

Week 2. Social determinants of health & “shifting the curve” (Sept. 12 & 14)
What is a “social determinant of health”, and how does it differ from a biological, genetic, or physiological determinant of health? How do social forces affect health behaviors and interact with the environment and biology to shape disease outcomes? How does individual health matter to population health? What are “upstream”, “downstream”, and “fundamental” causes of disease?

For Tuesday:
- Video: “Unnatural causes. In sickness and in wealth.”, ~1 hour (Linked on Moodle page).

For Thursday:
**Week 3. Health disparities (Sept. 19 & 21)**

Individuals and subgroups in society have vastly different health outcomes, as well as differential opportunities to access, and use, health care. Opportunities to access quality health care vary significantly by education background, income, occupation, and demographic background. Where do these inequalities originate? How do they vary across the life course?

*For Tuesday:*

*For Thursday:*
- Williams, David R. "Miles to go before we sleep: racial inequities in health." *Journal of Health and Social Behavior* 53.3 (2012): 279-295.

*** Response paper 1 due Friday, Sept. 22, by 5:00pm ***

**Week 4. Social status and health (Sept. 26), Health and place (Sept. 28)**

One of the fundamental mechanisms through which human (and many animal) societies are organized is a status-based system where some individuals become ranked higher or lower than others. This ranking has implications for stress levels, health behaviors, and happiness. In this week we’ll discuss how social status is linked in a variety of ways to our well-being, and how geography can affect our health.

*For Tuesday (Sept. 26):*

*For Thursday (Sept. 28):*
Week 5. Social relationships and health (Oct. 3 & 5)
Some of the most powerful observations in the social sciences are based in the fact that people are interconnected in society at many different levels. In the next two sessions, we’ll investigate how connections between people can shape how doctors decide to prescribe drugs, how spouses’ health is linked, and how a person’s health decisions can diffuse through a larger population.

For Tuesday:

For Thursday:

Part II: Key health issues within and across life course stages

Week 6. (Oct. 10 – NO CLASS), Midterm (Oct. 12).
For Thursday: PREPARE FOR MIDTERM (1:00-1:15p), which will be inclusive of all material Sept. 7-Oct. 5.

The pre-natal phase of the lifecourse is thought to represent one of the most delicate sensitive periods for health development. Why is this?

For Tuesday:
- Video: “Raising America: DNA is Not Destiny - How the Outside Gets Under the Skin”. (Link to film)

For Thursday:
Week 8. Childhood (Oct. 24 & Oct. 26)

For Tuesday:

For Thursday:
- Video: “The Weight of the Nation: Children in Crisis” (HBO Docs). ([Link on Moodle page](#)).

*** Response paper 2 due Friday, October 27, by 5:00pm ***

Week 9. Adolescence (Oct. 31 & Nov. 2)

For Tuesday:

For Thursday, Nov. 9:
- “How Girls Are Developing Earlier In An Age Of 'New Puberty.”” [NPR Podcast](#)
Week 10. Adulthood (November 7 & 9)

For Tuesday:

For Thursday:

Week 11. Older adulthood, Part I (Nov. 14 & 16)

For Tuesday:
- Gawande, Atul. “Being Mortal”. Introduction, Chapter 1, Ch 2 (pp. 1-54)

For Thursday:
- Gawande, Chapters 3 & 4 (pp. 55-110)

***Due via email to me by Fr. Nov. 17 @ 5pm: your 300-word final paper proposal***

Week 12. NO CLASS THANKSGIVING BREAK (Nov 20-24)

Week 13. Older adulthood, Part II (Nov. 28), How social & biological forces jointly shape health, Part I (Nov. 30)

For Tuesday:
- Gawande, Chaps 7, 8 (pp. 191-258)
- VIDEO: "What really matters at the end of life.” (TedTalk, BJ Miller)
Part III: Current developments and future directions

For Thursday, Nov. 30:
How is the synthesis of genetic, and social scientific perspectives changing our ability to not only gain deeper understandings of a range of health conditions, but to refine interventions based on new forms of knowledge? Can we assess how much of our health we inherit from our parents, and how much of our health is due to the social environment, or culture?


*** Short quiz (30m) during class, inclusive of material Oct. 24-Nov. 30 ***

Week 14. How social & biological forces jointly shape health, Part II (Dec. 5 & 7)

For Tuesday:

For Thursday:
- Okbay, A et al. (2016). “Genome-wide association study identifies 74 loci associated with educational attainment,” Nature. Published online May 11. doi:10.1038/nature17671

***Due via email to me and your two group members by Friday, December 8 @ 5pm: your critique of your group members' paper proposals.***
Week 15. Big data, Interventions, and Conclusions (Dec. 12)

For the last session of the term, we’ll ask: how is the era of “big data” and complex computing affecting how we understand human health and well-being? How are new technologies making the observation of health-related phenomena possible? What are the advantages of these new approaches? What are some of the challenges, limitations, and even dangers?


Final papers, are due in Moodle by ***Monday, Dec. 18 by 12:00n***
UMass Amherst statement on academic honesty
http://www.umass.edu/dean_students/academic_policy

All members of the University community must participate in the development of a climate conducive to academic honesty. While the faculty, because of their unique role in the educational process, have the responsibility for defining, encouraging, fostering, and upholding the ethic of academic honesty, students have the responsibility of conforming in all respects to that ethic.

Intellectual honesty requires that students demonstrate their own learning during examinations and other academic exercises, and that other sources of information or knowledge be appropriately credited. Scholarship depends upon the reliability of information and reference in the work of others. Student work at the University may be analyzed for originality of content. Such analysis may be done electronically or by other means. Student work may also be included in a database for the purpose of checking for possible plagiarized content in future student submissions. No form of cheating, plagiarism, fabrication, or facilitating of dishonesty will be condoned in the University community.

Academic dishonesty includes but is not limited to:
• Cheating - intentional use or attempted use of trickery, artifice, deception, breach of confidence, fraud and/or misrepresentation of one's academic work
• Fabrication - intentional and unauthorized falsification and/or invention of any information or citation in any academic exercise
• Plagiarism - knowingly representing the words or ideas of another as one's own work in any academic exercise. This includes submitting without citation, in whole or in part, prewritten term papers of another or the research of another, including but not limited to commercial vendors who sell or distribute such materials
• Facilitating dishonesty - knowingly helping or attempting to help another commit an act of academic dishonesty, including substituting for another in an examination, or allowing others to represent as their own one's papers, reports, or academic works

Sanctions may be imposed on any student who has committed an act of academic dishonesty. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible.

Formal definitions of academic dishonesty, examples of various forms of dishonesty, and the procedures which faculty must follow to penalize dishonesty are contained in the Academic Honesty Policy.

The policy can also be found in the Code of Student Conduct, available on the Dean of Students web site. If you are charged with a violation of the policy, you have the right to appeal. Appeals must be filed within ten days of notification by the Academic Honesty Office that a formal charge has been filed by an instructor who suspects dishonesty. Information on the appeals process is also contained in the Academic Honesty Policy. Appeals are filed in writing with the Academic Honesty Office. Finally, more information about the policy can be found at the Faculty Senate's Academic Honesty Page or the Writing Program's Avoiding Plagiarism page.
Accommodations and Services For Students
Disability Services provides a wide variety of services to students with disabilities. Our office promotes the empowerment of people with disabilities and their full integration into campus life and the community.

Accommodations
An accommodation is a modification or adjustment to a course, program, service, job, activity, or facility that enables a qualified student or employee with a disability to participate equally in a program, service, activity, or employment at the University. A “reasonable” accommodation refers to an accommodation that is appropriate as well as effective and efficient, and is agreed upon by the University and the consumer with a disability.

Many accommodations are available at the University to ensure that students with disabilities participate fully in academic and student life. They provide a student with a disability equal access to the educational and co-curricular process, without compromising essential components of the curriculum.
Accommodations are determined on an individual basis, based on the student’s documentation. For accommodations to be timely, they must be arranged well in advance. Students are responsible for contacting Disability Services at the beginning of each semester so that reasonable accommodations can be made in a timely manner (first two weeks of classes, or first week of summer or winter session).

Common Accommodations For Students
The accommodations most frequently provided include, but are not limited to:
Additional time to complete assignments
Alternate Formats for Printed Course Materials
Alternate Types of Exams
Assistive Technology
Captioning Services
Classroom Access Assistants
Document Conversion
Extended Time on Exams
Extension of Statute of Limitations
Exam Proctoring
Learning Specialists
Modification of Graduation Requirements
Note-Taking Services
Paratransit Services
Prepared Materials Before Class
Reduced Course Load
Sign Language Interpreters and Oral Transliterator
Tape Recorders