

MEDICAL ANTHROPOLOGY

ANTH 4193/6193

Spring 2018

T Th 10:45-12:05

JFB 102

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Course Objectives

Medical anthropology is the study of biological and cultural factors that influence both health and disease. Over the course of human evolution our bodies accumulated numerous adaptations. These adaptations, however, are context-dependent. Many of our physical features are adaptive in environments in which we evolved, but are mismatched to modern conditions. The goal of this course is to explore the underlying causes and consequences of the health challenges we face today. For example, why do people get sick from previously rare diseases? Why do we crave sugar, fat and sunshine despite their dangers? How do gene-culture interactions shape our health? Why after millions of years of evolution are we still prone to strep and pneumonia? Why don't we eat healthier food or stop smoking when we know we should? Why does our past make us susceptible to cancer and diabetes? A medical anthropology and evolutionary approach to the human body can help to answer these and many other questions.

By integrating evolutionary thinking with medical science, cultural diversity and global health perspectives, during this course we will develop a richer understanding of a wide variety of medical conditions. To do so we will first investigate the origins and underlying causes of who we are medically today. We will then turn to the major biological transitions and cultural revolutions that shape health outcomes. In the second half of the semester, we will use this background to address the consequences of our evolutionary past and the sometimes health mismatch with today's lifestyles.

Course Requirements

There will be two exams (**100 points each**). Throughout the semester groups of 3-4 students will put together a poster on a topic of your choice that will be presented at the end of the semester (**100 points**). We will also have two labs throughout the course of the semester that you are welcome to work on collaboratively (**100 points**). There will be ~30 pages of reading each week. Your grade will also reflect your performance on various reading assignments (6 will be assigned throughout the semester, of which you need to do 5) and in-class participation (**50 points**).

Learning Outcomes

The course is designed for all students interested in what makes us medically human, as well as for those who are pursuing careers in medicine and global health. Students will gain an understanding of the biological, cultural and evolutionary foundations of human health and disease by building skills in scientific, biological, behavioral, medical and public health thinking. The course has a strong cross-cultural emphasis so students will also learn to appreciate how different epidemiological environments affect health outcomes. Students will appreciate the value of an evolutionary perspective to more fully understanding human health, and to more broadly and critically appreciate the concepts of 'health' and 'disease'. Through lectures, discussions, labs and your own research, you will learn to critically evaluate scientific evidence, to consider alternative explanations for reported findings and to detect possible weaknesses in study designs and interpretations. The course includes several methods modules and related labs where students will additionally learn to collect diet and disease data, to construct graphs and charts, and interpret their findings.

Required Texts

Available in the University Book Store

1) *Medical Anthropology* (2017) AS Wiley & JS Allen Oxford University Press ISBN-10: 0199797080

2) *Body by Darwin* (2015) J Taylor, University of Chicago Press

Readings not from the textbooks are available online through the Marriott Library's webpage for this course. Note that changes may be made to the topics and readings over the course of the semester.

Schedule of Topics and Readings (topics and readings are listed for the week)

Week 1	I. Key concepts
1/9	Course introduction, what is medical anthropology (<u>Reading: Med Anthro</u> CH 1)
1/11	Evolutionary thinking and medicine tradeoffs? (<u>Reading: Med Anthro</u> CH2)
Week 2	
1/16	The body & human evolution (<u>Reading: Lieberman</u> 2013 CH 3)
1/18	The human diet: apes, Austrolophithecines and you (<u>Reading: Leonard et al.</u> 2007)
Week 3	
1/23	Agents of change: genes & the environment (<u>Reading: Gluckman et al.</u> CH 3)
1/25	Agents of change: hormones, development & life history (<u>Reading: Gluckman et al.</u> CH 5)
Week 4	
1/30	Energy expenditure & tradeoffs; (<u>Reading: Leonard</u> 2014)
2/1	Defenses; Methods Module: diet & nutrition (<u>Reading: Stearns & Medzhitov</u> CH 4; <i>Med Anthro</i> CH 4:79-80)
Week 5	II. Revolutions in the human body & adaptation
2/6	Transition 1: Bipedalism, bones & orthopedic diseases (<u>Reading: Body by Darwin</u> CH 3:81-105)
2/8 Poster topics due	Transition 2: Big brains, big bodies, small guts (<u>Reading: Aiello</u> 1997)
Week 6	
2/13	Transition 3: How domestication changed us (<u>Reading: Lieberman</u> 2013 CH 8)
2/15 Lab 1due	Transition 4: The industrial revolution (<u>Reading: Lieberman</u> 2013 CH 9)
Week 7	
2/20	Transition 5: The modern epidemiological & nutritional transitions (<u>Reading: Med Anthro</u> CH 8)
2/22 Exam	
Week 8	III. Modern times, modern bodies
2/27	Pregnancy, maternal-fetal conflicts, infertility (<u>Reading: Trevethan</u> CH 3; <i>Body by Darwin</i> CH 2)
3/1	Development origins & maternal-fetal programming ; metabolic syndrome (<u>Reading: Kuzawa</u> 2010)
Week 9	
3/6	Childbirth, what's unusual about it for humans (<u>Reading: Med Anthro</u> CH 6)
3/8	Medicalization of birth, the cesarean epidemic (Veile & Kramer 2016)
Week 10	
3/13	Teen motherhood; maturation & mate choice MHC (<u>Reading: Kramer & Lancaster</u> 2010)
3/15 Lab 2	Aging; demographic transitions (<u>Reading: Med Anthro</u> CH 7)
Week 11	
3/20 NO CLASS	
3/22 NO CLASS	
Week 12	IV. Mismatch life styles & diseases
3/27	Pathogens & infectious diseases (<u>Reading: Med Anthro</u> CH 9)
3/29	New infectious diseases: allergy & autoimmune disorders (<u>Reading: Body by Darwin</u> CH 1)
Week 13	
4/3	Diseases of living too long; heart disease <u>Reading: Body by Darwin</u> CH 6
4/5	Cancer <u>Reading: Body by Darwin</u> CH 5; Mukherjee 2017
Week 14	
4/10	Stress, sleep & mental disorders; (<u>Reading: Nedergaard & Goldman</u> 2016; <i>Body by Darwin</i> CH7)
4/12	Parting thoughts, Review
Week 15	
4/17	Poster presentations
4/19	Poster presentations
Week 16	
4/25 Exam	

Department and University Policies

ADA Statement: The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

Wellness Statement: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness (www.wellness.utah.edu; 801-581-7776).

Student Code: (Policy 6-400) All students are expected to maintain professional behavior in the classroom setting, according to the Student Code (regulations.utah.edu/academics/6-400.php). Students have specific rights in the classroom as detailed in S. II of the Code. The Code also specifies standards of behavior (S. III) and academic conduct (S. V). "Students must adhere to generally accepted standards of academic honesty, including but not limited to refraining from cheating, plagiarizing, research misconduct, misrepresenting one's work, and/or inappropriately collaborating" (S. VB). According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors. Students have the right to appeal such action to the Student Behavior Committee.

Incomplete Policy: An "I" will only be given for work not completed because of circumstances beyond the student's control, providing the student is passing the course and needs to complete 20% or less of the work. Valid reasons for an "I" grade include: (a) An illness (documented by a medical statement) that precludes the ability of the student to perform; (b) an accident or situation that prevents the student from physically being present (documentation may be required); (c) Extreme emotional or other mental circumstances that are severe enough to interfere with a student's normal academic performance. If you do receive an "I", do not register for the course again. You must complete the required work in the time agreed by you and the instructor. If the work is not completed within one year, the grade will change to an "E". Faculty will not accept additional work to change the grade after that one-year period. If a student has a problem with the course, please deal with it immediately. It is the student's responsibility to contact instructors and submit necessary forms.

Note: The syllabus is not a binding legal contract. It may be modified by the instructor when the student is given reasonable notice of the modification.