



Course Name: Disease and Society

Course Number: **MB 330**

Credits: 3

Credits: 3 (This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.)

Prerequisites: None

Instructor name: Dr. Jan Spitsbergen, DVM, Ph.D.

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Instructor phone: cell 541-905-6808

Link to instructor bio or website: <http://microbiology.science.oregonstate.edu/jan-spitsbergen>
<http://zfin.org/cgi-bin/webdriver?Mlval=aa-persview.apg&OID=ZDB-PERS-971201-1;>
[https://www.researchgate.net/profile/Jan_Spitsbergen/?ev=hdr_xprf;](https://www.researchgate.net/profile/Jan_Spitsbergen/?ev=hdr_xprf)
http://www.linkedin.com/profile/view?id=82188879&trk=nav_responsive_tab_profile_pic

Course Description

This course examines interactions between race, gender, economic status and social class and disease in the U.S. and worldwide. We will consider both historical patterns of disease and current disease problems.

This class relies on student-centered, student-directed Socratic learning. The professor provides a detailed roadmap in Canvas to guide the students' exploration of specific focus areas of their choice within the framework of general topics. This class is not recommended for students who prefer lecture-based learning or traditional multiple choice exams. Evaluation of students is based on projects including short essays,

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Powerpoint presentation, News Reports and web-based discussion with other students. Students must enjoy researching topics using relevant book chapters, scientific manuscripts and high quality news reports, not just Wikipedia and Google searches.

Communication

Please post all course-related questions in the General Discussion Forum so that the whole class may benefit from our conversation. Please email your instructor for matters of a personal nature. The instructor will reply to course-related questions and email within 24-48 hours.

Technical Assistance

If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelpdesk@oregonstate.edu or visit the [OSU Computer Helpdesk](#) online.

Learning Resources

Required Textbook

Reimagining Global Health: An Introduction by Paul Farmer, 2013 [electronic resource, OSU library]. U. of California Press. First 4 chapters are required reading. The remaining chapters are a resource for specific interest areas of individual students.

Additional Textbooks

- When People Come First [electronic resource, OSU library]: Critical Studies in Global Health by Joao Biehl, 2013. First 2 chapters provide an overview of the history and politics of global public health efforts. The remaining chapters discuss particular health issues. Princeton University Press. [electronic resource, OSU library].
- Betrayal of Trust: the Collapse of Global Public Health by Laurie Garrett, 2000. Hyperion.
- Infections and Inequalities: The Modern Plagues by Paul Farmer, 1999. University of California Press.
- How to Write and Publish a Scientific Paper, 8th Edition by Robert A. Day and Barbara Gastel, 2016. Greenwood Press, Westport Connecticut.

Podcasts

- Paul Farmer podcast Poverty and Disease; <http://www.youtube.com/watch?v=dEr1WIYJm3s>
- Paul Farmer podcast Dr. Paul Farmer on Foreign Aid (<https://www.youtube.com/watch?v=2SQdGm08JFc>)
- Defeating Global Poverty and Disease; Podcast by Ross Buckley; <http://www.youtube.com/watch?v=I9UtHbZvX6g>

Resources for Writing Short Essays

- How to Write and Publish a Scientific Paper, 8th Edition by Robert A. Day and Barbara Gastel, 2016. Greenwood Press, Westport Connecticut.

Online Writing Suite (<http://writingcenter.oregonstate.edu/online-writing-lab>) as part of the Oregon State University Writing Center which will give students online feedback on a work in progress.

Pointers for Writing a Short Essay

<http://homeworktips.about.com/od/essaywriting/a/fiveparagraph.htm>

Example of a Short Essay on Health Disparities

Iglehart JK. 2014. The ACA Opens The Door For Two Vulnerable Populations. Health Aff (Millwood) 33: (3)358.

<http://content.healthaffairs.org/content/33/3/358>

Note to prospective students: Please check with the OSU Bookstore for up-to-date information for the term you enroll (<http://osubeaverstore.com/> or 800-595-0357). If you purchase course materials from other sources, be very careful to obtain the correct ISBN.

Canvas. This course will be delivered via Canvas where you will interact with your classmates and with your instructor. Within the course Canvas site you will access the learning materials, such as the syllabus, class discussions, assignments, projects, and quizzes. To preview how an online course works, visit the [Ecampus Course Demo](#). For technical assistance, please visit [Ecampus Technical Help](#).

Measurable Student Learning Outcomes

Overall Difference, Power and Discrimination Learning Objectives

1. Explain how difference is socially constructed
2. Using historical and contemporary examples, describe how perceived differences, combined with unequal distribution of power across economic, social, and political institutions, result in discrimination.
3. Analyze ways in which the interactions of social categories, such as race, ethnicity, social class, gender, religion, sexual orientation, disability, and age, are related to difference, power, and discrimination in the United States.

Learning Objectives, Unit 1 (Weeks 1 and 2), Historical Perspectives on Disease and Epidemiology

1. Explain the germ theory of disease
2. Analyze the history of epidemiologic studies and the documentation of factors contributing to disease outbreaks
3. Explain host factors which influence disease susceptibility including social and economic status, age, gender, nutrition, genetic background, concurrent infections
4. Explain the role of zoonoses in emerging infectious diseases

Learning Objectives, Unit 2 (Weeks 3 and 4), Poverty and Disease, Global and Domestic

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1. Critically evaluate the influence of social class and economic status on patterns of disease globally and in the U.S
2. Analyze the factors which would be most practical and effective to change in order to reduce selected diseases

Learning Objectives, Unit 3 (Weeks 5 and 6), Gender and Disease

1. Define the effects of gender on disease patterns in the U.S. and other countries
2. Provide examples of the influence of education and social and economic status of women on disease patterns

Learning Objectives, Unit 4 (Weeks 7 and 8), Ethnicity and Disease

1. Provide examples from the U.S. and other cultures illustrating the adverse effects of low social status of ethnic minorities on health status

Learning Objectives, Unit 5, (Week 9), Factors Influencing Emergence of Antimicrobial Drug Resistance

1. Explain the role of low socioeconomic status on patterns of treatment and prevention of infectious diseases
2. Explain the factors influencing emergence of multiply resistant TB in prison populations

Learning Objectives, Unit 6 (Week 10), Strategies for Improving Public Health Status in Disadvantaged Groups, Cultures and Countries

1. Discuss the pros and cons of disease eradication efforts when they culminate in ceasing vaccination against the target disease
2. Critically evaluate innovative, proactive approaches for intervention to improve public health in the U.S. and globally
3. Suggest best practices for publically and privately funded programs targeting global public health problems

Bacc Core / Slash Course /

- **Baccalaureate Core**

This course emphasizes Writing Skills and Perspectives in the areas of history, medicine, anthropology and public health which are key goals of the Baccalaureate Core.

MB 330, Disease and Society, fulfills the Difference, Power, and Discrimination (DPD) requirement in the Baccalaureate Core. The DPD requirement engages students in the intellectual examination of the complexity of the structures, systems, and ideologies that sustain discrimination and the unequal distribution of power and resources in society. The unequal distribution of social, economic, and political power in the United States and in other countries is sustained through a variety of individual beliefs and institutional practices. These beliefs and practices have tended to obscure the origins and operations of social discrimination such that this unequal power distribution

is often viewed as the natural order. Examination of DPD course material will enhance meaningful democratic participation in our diverse university community and our increasingly multicultural U.S. society.

Evaluation of Student Performance

Short Essays 2 short essays X 100 possible points = 200

Online Discussion 10 essays or projects and participation in Discussion Forum X 50 possible points per essay/project with discussion = 500 points

Total Possible Points=700

Grading

658 and above A 560-587 B- 469-489 D+

630-657 A- 539-559 C+ 448-468 D

609-629 B+ 518-538 C 420-447 D-

588-608 B 490-517 C-

Course Content

Please note that there is much published information about health disparities and domestic and global public health. The Reading Assignment List provides reference material for students. Students are expected to choose 2 or 3 key content references to study for short essays, projects or Discussion Forums each week. **STUDENTS ARE NOT EXPECTED TO READ ALL OF THE REFERENCES PROVIDED. They are expected to choose areas that interest them and pursue those focus areas. **Note that in Canvas hot links to text for all references are available. Also the newest references are only in Canvas and not on the syllabus!****

Week	Topic	Reading Assignments	Learning Activities
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1	Historical Perspectives on Disease and Epidemiology	<p>A. Basic information about Koch's Postulates and the germ theory</p> <ol style="list-style-type: none"> 1. Fredericks DN, Relman DA. 1996. Sequence-based identification of microbial pathogens: a reconsideration of Koch's postulates. <i>Clin Microbiol Rev</i> 9: 18-33. 2. Koch's Postulates to Identify the Causative Agent of an Infectious Disease http://www.life.umd.edu/classroom/bsci424/BSCI223WebSiteFiles/KochsPostulates.htm 3. In Search of a Germ Theory Equivalent for Chronic Disease http://www.cdc.gov/pcd/issues/2012/11_0301.htm 4. Contagion: Historical Views of Diseases and Epidemics http://ocp.hul.harvard.edu/contagion/germtheory.html <p>B. References for Assignment 1</p> <p>Grad YH, Waldor MK. 2013. Deciphering the origins and tracking the evolution of cholera epidemics with whole-genome-based molecular epidemiology. <i>MBio</i> 4: e00670-00613. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774194/pdf/mBio.00670-13.pdf</p> <p>Frerichs, R.R. 2013. Epilogue of the Origin of Cholera in Haiti. http://www.ph.ucla.edu/epi/snow/cholera_haiti.html.</p> <p>Final Report of the Independent Panel of Experts on the Cholera Outbreak in Haiti. 2011 (May). Panel appointed by United Nations Secretary-General. https://www.un.org/News/dh/infocus/haiti/UN-cholera-report-final.pdf</p> <p>C. Suggested References for Discussion Forum</p> <p><i>Principles of Epidemiology (SELF-STUDY Course SS1978)</i>, Centers for Disease Control, 2012. http://www.cdc.gov/osels/scientific_edu/ss1978/SS1978.pdf</p> <p><i>Basic Epidemiology</i>, Bonita, R., Beaglehole, R., Kjellström, T. 2006. World Health Organization. http://whqlibdoc.who.int/publications/2006/9241547073_eng.pdf</p> <p>Harvard Global Health Institute Website. http://globalhealth.harvard.edu/curricula-slides-reading#DV</p> <p>WHO Global Burden of Disease Powerpoint. http://globalhealth.harvard.edu/curricula-slides-reading#DV</p> <p>CDC Teacher's Tools for Epidemiology. http://www.cdc.gov/ncidod/teachers_tools/index.htm</p> <p>10 Worst Epidemics by Robert Lamb, Discovery.com. http://dsc.discovery.com/tv-shows/curiosity/topics/10-worst-epidemics.htm</p> <p>Plague in the United States, CDC. http://www.cdc.gov/plague/maps/</p> <p>Pertussis (Whooping Cough) Outbreaks, CDC. http://www.cdc.gov/pertussis/outbreaks/about.html</p> <p>Hunger amplifies infectious diseases for millions fleeing the violence of Boko Haram. Roberts, L. 2017. <i>Science</i> Vol 356, Issue 6339.</p>	<p>A. Assignment 1 Goal: to critically evaluate conflicting data and to decide on a resolution to the conflict. Discuss two competing theories for the source of cholera bacteria which sparked the 2010-2013 outbreak in Haiti. Choose which point of view you support and explain why. The discussion should be a 500 (approximately) word essay. Submit the document as an attachment under the Assignment 1 heading in Canvas by 11 PM Monday the second week of class.</p> <p>B. Week 1 Discussion Forum Choose a disease outbreak and document the agencies that investigated the outbreak, the methods they used in the investigation, and the conclusions they drew regarding causation. Students may choose a problem from history or a recent investigation to illustrate historical or current approaches to epidemiological investigations. For example the life and work of Ignaz Semmelweis is a classic example of early resistance to the germ theory in the scientific community. Write a 200-400 word essay and post it to the Discussion Board.</p>
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2	Historical Perspectives on Disease and Epidemiology	<p>References, Assignment 2</p> <p><i>Guns, Germs and Steel</i> by Jared Diamond (Chapter 11—Lethal Gift of Livestock; about zoonoses)</p> <p><i>Rabid</i> by Bill Wasik and Monica Murphy (Chapter 8—Island of the Mad Dogs; about rabies outbreak on Bali)</p> <p>Bats are reservoir of Ebola in Bangladesh. http://www.sciencedaily.com/releases/2013/01/130116163819.htm</p> <p>Olival KJ, et al. 2013. Ebola virus antibodies in fruit bats, Bangladesh. <i>Emerg Infect Dis</i> 19: 270-273. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3559038/pdf/12-0524.pdf</p> <p>Aguilar HC, Lee B. 2011. Emerging paramyxoviruses: molecular mechanisms and antiviral strategies. <i>Expert Rev Mol Med</i> 13: e6. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3253018/pdf/nihms343753.pdf</p> <p>Baker KS, et al. 2013. Novel, potentially zoonotic paramyxoviruses from the African straw-colored fruit bat <i>Eidolon helvum</i>. <i>J Virol</i> 87: 1348-1358. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3554137/</p> <p>Yaiw KC, Bingham J, Cramer G, Mungall B, Hyatt A, Yu M, Eaton B, Shamala D, Wang LF, Thong Wong K. 2008. Tioman virus, a paramyxovirus of bat origin, causes mild disease in pigs and has a predilection for lymphoid tissues. <i>J Virol</i> 82: 565-568. http://jvi.asm.org/content/82/1/565.full.pdf+html</p> <p>Resources, Discussion Forum Week 2</p> <p>When People Come First [electronic resource, OSU library]: <i>Critical Studies in Global Health</i> by Joao Biehl, 2013. Princeton University Press. Preface, "Critical Global Health", Pages 1-22 http://oasis.oregonstate.edu/search~S13/?searchtype=t&searcharg=When+People+Come+First%3ACritical+Studies+in+Global+Health&searchscope=13&sortdropdown=-&SORT=D</p>	<p>A.Assignment 2--Student Investigation of Zoonotic Diseases</p> <p>Option 1: Emerging Diseases--describe the role of specific animal species and their ecological niches in the outbreaks of SARS, Tioman, or Sin Nombre epidemics.</p> <p>Goal</p> <p>To clarify the role of wildlife and domestic species in selected emerging diseases.</p> <p>Option 2: Longstanding Epidemic Diseases—compare the patterns of epidemics in rich and poor countries. Suggested topics include rabies, hemolytic uremic <i>E. Coli</i> infection. Feel free to choose a topic that interests you.</p> <p>Goal</p> <p>To clarify the role of wildlife and domestic species in selected longstanding epidemic diseases</p> <p>Method for Option 1 and 2</p> <p>Post a 500 word essay under Assignment 2 of the Canvas Site by 11 PM Monday of</p>

		<p>Reimagining Global Health [electronic resource, OSU library]: An Introduction by Paul Farmer, 2013. U. of California. Introduction: "A Biosocial Approach to Public Health", pages1-12.</p> <p>http://oasis.oregonstate.edu/search/?searchtype=t&searcharg=Reimagining+Global+Health%3AAAn+Introduction&searchscope=13&SORT=D</p> <p>Betrayal of trust: the collapse of global public health by Laurie Garrett, 2000. Hyperion.</p> <p>Infections and Inequalities: The Modern Plagues by Paul Farmer, 1999. University of California Press.</p> <p>Paul Farmer podcast Poverty and Disease http://www.youtube.com/watch?v=dEr1WIYJm3s; Defeating Global Poverty and Disease Podcast by Ross Buckley http://www.youtube.com/watch?v=I9UtHbzyX6g</p> <p><u>Genetic Background and Disease</u> Sousa AO, Salem JI, Lee FK, Vercosa MC, Cruaud P, Bloom BR, Lagrange PH, David HL. 1997. An epidemic of tuberculosis with a high rate of tuberculin anergy among a population previously unexposed to tuberculosis, the Yanomami Indians of the Brazilian Amazon. Proc Natl Acad Sci U S A 94: 13227-13232. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24291/</p> <p>Ko WY, et al. 2013. Identifying Darwinian selection acting on different human APOL1 variants among diverse African populations. Am J Hum Genet 93: 54-66. (Populations that evolved to have genetic resistance to African sleeping sickness are predisposed to develop more kidney disease in modern societies.) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3710747/</p> <p>Cohn SK, Jr., Weaver LT. 2006. The Black Death and AIDS: CCR5-Delta32 in genetics and history. QJM 99: 497-503. http://qjmed.oxfordjournals.org/content/99/8/497.full.pdf+html</p> <p><u>Health Disparities in the U.S.</u></p>	<p>week 3 (day may be adjusted due to July 4 holiday).</p> <p><u>B.Week 2 Discussion Forum</u> This week's Discussion Forum will focus on social and economic factors as well as specific host factors which influence susceptibility to disease. By Thursday of this week at 5 PM please post a commentary considering the critical role of 3 such factors in determining susceptibility to a specific disease. Examples of topics might include tuberculosis in the Yanomami, the influence of sickle cell anemia on malaria or the influence of high levels of hygiene on allergy and asthma in highly developed societies. Also a mutation which protected historical European populations against bubonic plague also now protects these people against HIV. Your response should be 200-400 words. Please respond to content or give constructive suggestions or praise to at least 2 of your peers by Monday of week 3 (day may be adjusted due to July 4 holiday) at 11 PM.</p>
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3	Poverty and Disease, Domestic and Global	<p>When People Come First [electronic resource, OSU library]: Critical Studies in Global Health by Joao Biehl, 2013. Princeton University Press. http://oasis.oregonstate.edu/search~S13/?searchtype=t&searcharg=When+People+Come+First%3ACritical+Studies+in+Global+Health&searchscope=13&sortdropdown=-&SORT=D</p> <p>Reimagining Global Health: An Introduction by Paul Farmer, 2013 [electronic resource, OSU library]. U. of California Press. Chapters 6 and 7, "Building a Effective Rural Health Delivery Model in Haiti and Rwanda, pages 133-183, "Scaling Up Effective Delivery Models Worldwide", pages 184-211. http://oasis.oregonstate.edu/search/?searchtype=t&searcharg=Reimagining+Global+Health%3AAAn+Introduction&searchscope=13&SORT=D</p> <p>Additional Textbooks Betrayal of trust: the collapse of global public health by Laurie Garrett, 2000. Hyperion.</p> <p>Infections and Inequalities: The Modern Plagues by Paul Farmer, 1999. University of California Press.</p>	<p><u>Week 3 Discussion Forum</u> By Wednesday of week 3 at 5 PM please post a commentary of 200-400 words evaluating the ways in which poverty increases a disease of your choice. Sometimes in the global health community stakeholders argue which comes first, poverty or increased risk of a specific disease. Certainly poverty can predispose populations to disease and specific diseases can lead to or exacerbate poverty. Students will provide constructive suggestions to improve 2 of their classmate's presentations by Monday of week 4 at 11 PM</p>
4	Poverty and Disease, Domestic and Global	<p>Robert Wood Johnson Foundation http://www.rwjf.org/en/blogs/new-public-health.html?bst=new-public-health%3ahealth-disparities&cid=xps_nph_040</p> <p>UC Davis Center for Health Disparities http://www.ucdmc.ucdavis.edu/crhd/</p> <p>Case Western Reserve Center for Reducing Health Disparities</p>	<p><u>Discussion Forum, Week 4</u> Choose a specific public health problem related to poverty and propose an intervention to mitigate the problem. Pretend that you</p>

		<p>http://www.case.edu/med/ccrhd/ Harvard University Center for Research on Health Disparities http://catalyst.harvard.edu/programs/disparities/ University of Pennsylvania Center for Community Health Workers http://chw.upenn.edu/</p> <p>References on Community Health Worker Model</p> <p>Balcazar H, Alvarado M, Ortiz G. 2011. Salud Para Su Corazon (health for your heart) community health worker model: community and clinical approaches for addressing cardiovascular disease risk reduction in Hispanics/Latinos. <i>J Ambul Care Manage</i> 34: 362-372.</p> <p>Chang LW, Alamo S, Guma S, Christopher J, Suntoké T, Omasete R, Montis JP, Quinn TC, Juncker M, Reynolds SJ. 2009. Two-year virologic outcomes of an alternative AIDS care model: evaluation of a peer health worker and nurse-staffed community-based program in Uganda. <i>J Acquir Immune Defic Syndr</i> 50: 276-282.</p> <p>Cherrington A, Ayala GX, Amick H, Allison J, Corbie-Smith G, Scarinci I. 2008a. Implementing the community health worker model within diabetes management: challenges and lessons learned from programs across the United States. <i>Diabetes Educ</i> 34: 824-833.</p> <p>Cherrington A, Ayala GX, Amick H, Scarinci I, Allison J, Corbie-Smith G. 2008b. Applying the community health worker model to diabetes management: using mixed methods to assess implementation and effectiveness. <i>J Health Care Poor Underserved</i> 19: 1044-1059.</p> <p>Connor A, Rainer LP, Simcox JB, Thomisee K. 2007. Increasing the delivery of health care services to migrant farm worker families through a community partnership model. <i>Public Health Nurs</i> 24: 355-360.</p> <p>Farquhar SA, Michael YL. 2004. Poder es Salud/Power for Health: an application of the community health worker model in Portland, Oregon. <i>J Interprof Care</i> 18: 445-447.</p> <p>Hurtado M, Spinner JR, Yang M, Evensen C, Windham A, Ortiz G, Tracy R, Ivy ED. 2014. Knowledge and behavioral effects in cardiovascular health: Community Health Worker Health Disparities Initiative, 2007-2010. <i>Prev Chronic Dis</i> 11: E22.</p> <p>Johnson CD, Noyes J, Haines A, Thomas K, Stockport C, Ribas AN, Harris M. 2013. Learning from the Brazilian community health worker model in North Wales. <i>Global Health</i> 9: 25.</p> <p>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681592/pdf/1744-8603-9-25.pdf</p> <p>Kangovi S, Mitra N, Grande D, White ML, McCollum S, Sellman J, Shannon RP, Long JA. 2014. Patient-Centered Community Health Worker Intervention to Improve Posthospital Outcomes: A Randomized Clinical Trial. <i>JAMA Intern Med</i>.</p>	<p>are attending a scientific meeting. Prepare a 15 minute Powerpoint lecture on your proposed intervention and post it to the Discussion Board. Please post your project by Wed of week 4. Students will provide constructive suggestions to improve 2 of their classmate's presentations by Monday of week 5 at 11 PM.</p>
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5	Gender and Disease	<p>Book Chapter Infections and Inequalities: The Modern Plagues by Paul Farmer, 1999. University of California Press. Chapter 3, "Invisible Women—Class, Gender and HIV", p. 59-93.</p> <p>Journal Articles Abate KH. 2013. Gender Disparity in Prevalence of Depression Among Patient Population: A Systematic Review. <i>Ethiop J Health Sci</i> 23: 283-288. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847538/</p> <p>Chowdhury AM, Bhuiya A, Chowdhury ME, Rasheed S, Hussain Z, Chen LC. 2013. The Bangladesh paradox: exceptional health achievement despite economic poverty. <i>Lancet</i> 382: 1734-1745.</p> <p>Clough S. 2011. Gender and the hygiene hypothesis. <i>Soc Sci Med</i> 72: 486-493.</p> <p>Cohen J. 2014. Kidney disease is killing poor male sugar cane workers in Central and South America (Links to an external site.). <i>Science</i> 344: 143-147.</p> <p>Chatterjee, R. 2016. Farm workers are dying in southern India as an epidemic of a mysterious kidney disease goes global. 2016. <i>Science</i> 352 (6281): 24-27.</p> <p>Hawkes S, Buse K. 2013. Gender and global health: evidence, policy, and inconvenient truths. <i>Lancet</i> 381: 1783-1787.</p> <p>Incorvaia E, Sicouri L, Petersen-Mahrt SK, Schmitz KM. 2013. Hormones and AID: balancing immunity and autoimmunity. <i>Autoimmunity</i> 46: 128-137.</p> <p>Klein SL. 2000. Hormones and mating system affect sex and species differences in immune function among vertebrates. <i>Behav Processes</i> 51: 149-166.</p>	<p><u>Discussion Forum Week 5</u> Choose a disease (can be infectious or noninfectious) in which there is a differential prevalence based on gender in a setting of your choice. Analyze the contribution of biological aspects of gender as well as the social context of gender on this disease in this situation. Post a 400-500 word discussion of the topic in the form of a News and Analysis article from the journal <i>Science</i> on the Discussion Board by Wed 5PM. Please respond to content or give constructive suggestions or praise to at least 2 of your peers by Monday of week 6 at 11 PM.</p>

		<p>Liu L, Benten WP, Wang L, Hao X, Li Q, Zhang H, Guo D, Wang Y, Wunderlich F, Qiao Z. 2005. Modulation of Leishmania donovani infection and cell viability by testosterone in bone marrow-derived macrophages: signaling via surface binding sites. Steroids 70: 604-614.</p> <p>Lokuge S, Frey BN, Foster JA, Soares CN, Steiner M. 2011. Depression in women: windows of vulnerability and new insights into the link between estrogen and serotonin. J Clin Psychiatry 72: e1563-1569.</p> <p>McClelland EE, Hobbs LM, Rivera J, Casadevall A, Potts WK, Smith JM, Ory JJ. 2013. The role of host gender in the pathogenesis of Cryptococcus neoformans infections. PLoS One 8: e63632.</p> <p>Rettew JA, Huet-Hudson YM, Marriott I. 2008. Testosterone reduces macrophage expression in the mouse of toll-like receptor 4, a trigger for inflammation and innate immunity. Biol Reprod 78: 432-437.</p> <p>Schiller CE, O'Hara MW, Rubinow DR, Johnson AK. 2013. Estradiol modulates anhedonia and behavioral despair in rats and negative affect in a subgroup of women at high risk for postpartum depression. Physiol Behav 119: 137-14.</p> <p>Preparaing a News Article</p> <p>How to Write and Publish a Scientific Paper, 8th Edition by Robert A. Day and Barbara Gastel, Chapter 24, How to Write Opinion. Chapter 26, How to Write for the Public.</p> <p>Example News and Analysis Article on Public Health from the journal Science</p> <p>Roberts L. 2013. Infectious disease. Israel's silent polio epidemic breaks all the rules. Science 342: 679-680.</p> <p>http://www.sciencemag.org/content/342/6159/679</p>	
6	Gender and Disease		<p><u>Discussion Forum Week 6</u></p> <p>Choose a disease (can be infectious or noninfectious) in which there is a differential prevalence based on gender in a setting of your choice. Suggest a meaningful intervention to mitigate the disease burden. Post a 400-500 word discussion of the topic on the Discussion Board by Wed 5PM. . Please give constructive</p>

			suggestions or praise to at least 2 of your peers by Monday of week 7 at 11 PM.
7	Ethnicity and Disease	<p>Historical Examples of Health Disparities Based on Race and Racial Discrimination in Health Care Systems</p> <p>Chapter 3: "Colonial Medicine and Its Legacies", pages 33-73. In Reimagining Global Health, Farmer et al.2013.</p> <p>Racism and Research: The Case of the Tuskegee Syphilis Study, Brandt, A.M., <i>Hastings Center Magazine</i>, Dec 1978 http://www.med.navy.mil/bumed/Documents/Healthcare%20Ethics/Racism-And-Research.pdf</p> <p>U tube video on Tuskegee Study http://www.youtube.com/watch?v=x-YMdaEdbcg</p> <p>Scandal. Tuskegee [videorecording] / producer/writer, Laurence Mattin ; director, J.R. Rost ; CBS News productions.;; <u>Films for the Humanities & Sciences (Firm)</u> ; Princeton, NJ, 2000.</p> <p>OSU Library, R853.H8 T869 2004 DVD, Valley Library</p> <p>Fear and Loathing in Hawaii: 'Colony', Terry Gross, NPR program on Leper Colony on Molokai, Feb 206 http://www.npr.org/templates/story/story.php?storyId=5183996</p> <p>Institute of Medicine Study of Health Disparities, 2002 http://www.iom.edu/~/media/Files/Report%20Files/2003/Unequal-Treatment-Confronting-Racial-and-Ethnic-Disparities-in-Health-Care/DisparitiesAdmin8pg.pdf</p>	<p><u>Discussion Forum Week 7</u> What lessons can we learn from the legacy of colonial medicine, the Tuskegee Syphilis study, and the Kalaupapa leper colony in Hawaii? How can we work respectfully and effectively as partners with disadvantaged populations in the U.S. and worldwide? Submit a 400-500 word essay on the Discussion Board by Wed 5 PM. Please comment on the content or give constructive suggestions or praise to at least 2 of your peers by Monday of week 8 at 11 PM.</p>
8	Ethnicity and Disease	<p>Remember that references on Community Health Care Workers are presented in Unit 2 (weeks 3 and 4).</p> <p>Current Examples of Health Disparities Based on Race Leow JJ, Lim VW, Lingam P, Go KT, Teo LT. 2014. Ethnic Disparities in Trauma Mortality Outcomes. <i>World J Surg</i>. Epub- DOI 10.1007/s00268-014-2459-5. Mayr FB, Yende S, Angus DC. 2014. Epidemiology of severe sepsis. <i>Virulence</i> 5: 4-11. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3916382/pdf/viru-5-4.pdf.</p>	<p><u>Discussion Forum Week 8</u> Critically evaluate the role of Community Health Care Workers in efforts to reduce health disparities related to race and ethnicity. Submit a 400-500 word essay on the Discussion Board by Wed 5</p>

		<p>O'Brien KL, et al. 2003. Efficacy and safety of seven-valent conjugate pneumococcal vaccine in American Indian children: group randomised trial. <i>Lancet</i> 362: 355-361.</p> <p>Peck AJ, Holman RC, Curns AT, Lingappa JR, Cheek JE, Singleton RJ, Carver K, Anderson LJ. 2005. Lower respiratory tract infections among American Indian and Alaska Native children and the general population of U.S. Children. <i>Pediatr Infect Dis J</i> 24: 342-351.</p> <p>Rajaratnam JK, Marcus JR, Flaxman AD, Wang H, Levin-Rector A, Dwyer L, Costa M, Lopez AD, Murray CJ. 2010. Neonatal, postneonatal, childhood, and under-5 mortality for 187 countries, 1970-2010: a systematic analysis of progress towards Millennium Development Goal 4. <i>Lancet</i> 375: 1988-2008.</p> <p>Singh GK, Yu SM. 1996. US childhood mortality, 1950 through 1993: Trends and socioeconomic differentials. <i>Am J Public Health</i> 86: 505-512.</p> <p>Ski CF, King-Shier KM, Thompson DR. 2014. Gender, socioeconomic and ethnic/racial disparities in cardiovascular disease: a time for change. <i>Int J Cardiol</i> 170: 255-257.</p> <p>Son MB, Johnson VM, Hersh AO, Lo MS, Costenbader KH. 2014. Outcomes in hospitalized pediatric patients with systemic lupus erythematosus. <i>Pediatrics</i> 133: e106-113.</p> <p>Strutz KL, Richardson LJ, Hussey JM. 2014. Selected preconception health indicators and birth weight disparities in a national study. <i>Womens Health Issues</i> 24: e89-97.</p> <p>Thammana RV, Knechtle SJ, Romero R, Heffron TG, Daniels CT, Patzer RE. 2014. Racial and socioeconomic disparities in pediatric and young adult liver transplant outcomes. <i>Liver Transpl</i> 20: 100-115.</p> <p>Tsivgoulis G, et al. 2014. Racial disparities in early mortality in 1,134 young patients with acute stroke. <i>Neurol Sci</i>. epub- DOI 10.1007/s10072-014-1640-9.</p> <p>Ethnicity and Suicide http://www.newsweek.com/2013/05/22/why-suicide-has-become-epidemic-and-what-we-can-do-help-237434.html</p> <p>Mitigation of Health Disparities Between Ethnic and Racial Groups Following the Affordable Care Act Affordable Care Act has reduced racial/ethnic health disparities. Science Daily. https://www.sciencedaily.com/releases/2015/12/151203081922.htm</p> <p>Jie Chen, Arturo Vargas-Bustamante, Karoline Mortensen, Alexander N. Ortega. Racial and Ethnic Disparities in Health Care Access and Utilization Under the Affordable Care Act. <i>Medical Care</i>, 2015; 1 DOI:10.1097/MLR.0000000000000467</p>	<p>PM. Please comment on the content or give constructive suggestions or praise to at least 2 of your peers by Monday of week 9 at 11 PM.</p>
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		<p>Susan L. Hayes, Pamela Riley, David C. Radley, and Douglas McCarthy 2015. Closing the Gap: Past Performance of Health Insurance in Reducing Racial and Ethnic Disparities in Access to Care Could Be an Indication of Future Results. Commonwealth Fund pub. 1805 Vol. 5: 1-11.</p> <p>How does the Affordable Care Act address racial and ethnic disparities in health care? Robert Wood Johnson Foundation. www.rwjf.org. December 2011.</p>	
9	<p>Role of Poverty and Low Economic Status in Emergence of Drug Resistance</p>	<p>Adhvaryu M, Vakharia B. 2011. Drug-resistant tuberculosis: emerging treatment options. Clin Pharmacol 3: 51-67. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3262386/pdf/cpaa-3-051.pdf</p> <p>Allen T, Parker M. 2011. The "other diseases" of the Millennium Development Goals: rhetoric and reality of free drug distribution to cure the poor's parasites. Third World Q 32: 91-117.</p> <p>Atre SR, Mistry NF. 2005. Multidrug-resistant tuberculosis (MDR-TB) in India: an attempt to link biosocial determinants. J Public Health Policy 26: 96-114.</p> <p>Bayer R, Oppenheimer GM. 2007. Scale-ups, scarcity, and selections: the experience of doctors in South Africa. AIDS 21 Suppl 5: S43-47.</p> <p>Campbell S. 2007. The need for a global response to antimicrobial resistance. Nurs Stand 21: 35-40.</p> <p>Gupta S, Pal A, Vyas SP. 2010. Drug delivery strategies for therapy of visceral leishmaniasis. Expert Opin Drug Deliv 7: 371-402.</p> <p>Kristiansson C, Grape M, Gotuzzo E, Samalvides F, Chauca J, Larsson M, Bartoloni A, Pallecchi L, Kronvall G, Petzold M. 2009. Socioeconomic factors and antibiotic use in relation to antimicrobial resistance in the Amazonian area of Peru. Scand J Infect Dis 41: 303-312.</p> <p>Kupferschmidt, K. 2016. Resistance fighters--evolutionary biologists are challenging old dogmas about the way antibiotics should be used. Science 352: 758-761.</p> <p>Lahra MM, Lo YR, Whiley DM. 2013. Gonococcal antimicrobial resistance in the Western Pacific Region. Sex Transm Infect 89 Suppl 4: iv19-23.</p> <p>Nickerson EK, Wuthiekanun V, Day NP, Chaowagul W, Peacock SJ. 2006. Methicillin-resistant Staphylococcus aureus in rural Asia. Lancet Infect Dis 6: 70-71.</p> <p>Nsimba SE. 2007. Assessing the impact of educational intervention for improving management of malaria and other childhood illnesses in Kibaha District-Tanzania. East Afr J Public Health 4: 5-11.</p> <p>Roberts, L. 2016. Malaria wars--can malaria be eliminated from the Mekong region before multiple-drug resistance makes its untreatable? Science 352:398.</p>	<p><u>Discussion Forum Week 9</u></p> <p>Prepare a short essay discussing approaches to reduce drug resistance in the U.S. or globally. Post a 400-500 word discussion of the topic on the Discussion Board by Wed 5PM. . Please give constructive suggestions or praise to at least 2 of your peers by Monday of week 10 at 11 PM.</p>

		<p>Prisons and Drug Resistant TB</p> <p>Al-Darraj HA, Kamarulzaman A, Altice FL. 2014. Latent tuberculosis infection in a Malaysian prison: implications for a comprehensive integrated control program in prisons. BMC Public Health 14: 22.</p> <p>Awofeso N. 2010. Prisons as social determinants of hepatitis C virus and tuberculosis infections. Public Health Rep 125 Suppl 4: 25-33.</p> <p>Story A, Murad S, Roberts W, Verheyen M, Hayward AC, London Tuberculosis Nurses Network. 2007. Tuberculosis in London: the importance of homelessness, problem drug use and prison. Thorax 62: 667-671.</p> <p>Tiruvilumala P, Reichman LB. 2002. Tuberculosis. Annu Rev Public Health 23: 403-426.</p>	
10	<p>Strategies for Improving Public Health Status in Disadvantaged Cultures and Countries</p>	<p>References</p> <ol style="list-style-type: none"> Podcast of Larry Brilliant, president and CEO of the Skoll Global Threats Fund, regarding his experiences during the campaign to eradicate smallpox http://www.ted.com/talks/larry_brightly_wants_to_stop_pandemics.html Emerging Epidemics: Anne Rimoin Hunts Monkeypox in the Congo River Basin [Video] http://www.scientificamerican.com/article.cfm?id=rimoin-video-emerging-epidemics-hunt-monkeypox-congo-river-basin Shah S. 2013. New threat from poxviruses. Sci Am 308: 66-71. <p>Could Monkeypox Take Over Where Smallpox Left Off? Smallpox may be gone, but its viral cousins—monkeypox and cowpox—are staging a comeback</p> <ol style="list-style-type: none"> Manuscripts on recent zoonotic infections with poxvirus <p>Bera BC, et al. 2011. Zoonotic cases of camelpox infection in India. Vet Microbiol 152: 29-38.</p> <p>Hutson CL, et al. 2011. Monkeypox disease transmission in an experimental setting: prairie dog animal model. PLoS One 6: e28295.</p> <p>Parker S, Buller RM. 2013. A review of experimental and natural infections of animals with monkeypox virus between 1958 and 2012. Future Virol 8: 129-157. Some surprising findings in the global effort to eradicate polio A recent outbreak of polio in the wealthy, highly sophisticated nation of Israel shows that even high vaccination rates may not prevent a disease outbreak when we do not clearly understand the factors which make the most effective vaccines. </p>	<p><u>Discussion Forum Week 10 Goal</u> To consider the pros and cons of disease eradication especially if it involves ceasing vaccination against a disease for which genetically similar pathogens are present in domestic and/or wild animal species or in the case of wealthy countries with subcultures with very low living standards.</p> <p><u>Assessment Method</u> Post a 400-500 word essay by Wed of week 10 at 5 PM discussing the wisdom of ceasing vaccination for diseases like smallpox which are eradicated but which have closely related viruses present in domestic or wild animal species. Do you think that the cause of improving public health and minimizing risk to world human populations is best served by ceasing vaccination when diseases are eradicated? In</p>

		<p>Roberts, L. (2013). "Infectious disease. Israel's silent polio epidemic breaks all the rules." <i>Science</i> 342(6159): 679-680.</p> <p>7. Risks from Thawing Tundra Associated with Global Climate Change</p> <p>a. News Report: Climate Threat: Thawing Tundra Releases Infected Corpses Livescience, March 26, 2008, Kristin Elise Phillips http://www.livescience.com/2403-climate-threat-thawing-tundra-releases-infected-corpses.html</p> <p>b. Graham DE, et al. 2012. Microbes in thawing permafrost: the unknown variable in the climate change equation. <i>ISME J</i> 6: 709-712.</p> <p>c. News Report: Ancient Giant Virus Revived http://www.biotechniques.com/news/biotechniquesNews/biotechniques-351032.html?utm_source=BioTechniques+Newsletters+%26+e-Alerts&utm_campaign=5d7a0882f4-daily&utm_medium=email&utm_term=0_5f518744d7-5d7a0882f4-86607475#.Uz2dnKJ2akA</p> <p>Legendre M, et al. 2014. Thirty-thousand-year-old distant relative of giant icosahedral DNA viruses with a pandoravirus morphology. <i>Proc Natl Acad Sci U S A</i> 111: 4274-4279.</p>	<p>fact, is eradication the best way to spend finite world public health resources? Students will comment on content or provide constructive suggestions to improve 2 of their classmate's essays Monday of week 11 at 11PM.</p>
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Course Policies

Discussion Participation

Students are expected to participate in all graded discussions. While there is great flexibility in online courses, this is not a self-paced course. You will need to participate in our discussions on at least two different days each week, with your first post due no later than Wednesday evening, and your second post or constructive peer review for classmates by the following Monday at 11 PM.

Incompletes

Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible (in other words, usually everything but the final paper). If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away.

Statement Regarding Students with Disabilities

Accommodations are collaborative efforts between students, faculty and [Disability Access Services \(DAS\)](#) with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

This course is offered through Oregon State University Extended Campus. For more information, contact:
 Web: ecampus.oregonstate.edu Email: ecampus@oregonstate.edu Tel: 800-667-1465

Expectations for Student Conduct

Student conduct is governed by the university's policies, as explained in the [Office of Student Conduct: Information and Regulations](#).

Academic Integrity

Students are expected to comply with all regulations pertaining to academic honesty. For further information, visit

<http://ecampus.oregonstate.edu/services/proctoring/academichonesty.htm>;

http://leadership.oregonstate.edu/sites/leadership.oregonstate.edu/files/policies/student_conduct_2-25-15_576-15.pdf, or contact the office of Student Conduct and Community Standards at 541-737-3656.

OAR 576-015-0020 (2) Academic or Scholarly Dishonesty:

a) Academic or Scholarly Dishonesty is defined as an act of deception in which a Student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the Student's own efforts or the efforts of another.

b) It includes:

(i) CHEATING - use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a Student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.

(ii) FABRICATION - falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.

(iii) ASSISTING - helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person (ORS 165.114).

(iv) TAMPERING - altering or interfering with evaluation instruments or documents.

(v) PLAGIARISM - representing the words or ideas of another person or presenting someone else's words, ideas, artistry or data as one's own, or using one's own previously submitted work. Plagiarism includes but is not limited to copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.

c) Academic Dishonesty cases are handled initially by the academic units, following the process outlined in the University's Academic Dishonesty Report Form, and will also be referred to SCCS for action under these rules.

Conduct in this Online Classroom

This course is offered through Oregon State University Extended Campus. For more information, contact:

Web: ecampus.oregonstate.edu

Email: ecampus@oregonstate.edu

Tel: 800-667-1465

Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the [university's regulations regarding civility](#).

Tutoring

[NetTutor](#) is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours. Access NetTutor from within your Canvas class by clicking on the Tools button in your course menu.

OSU Student Evaluation of Teaching

Course evaluation results are extremely important and are used to help me improve this course and the learning experience of future students. Results from the 19 multiple choice questions are tabulated anonymously and go directly to instructors and department heads. Student comments on the open-ended questions are compiled and confidentially forwarded to each instructor, per OSU procedures. The online Student Evaluation of Teaching form will be available toward the end of each term, and you will be sent instructions via ONID by the Office of Academic Programs, Assessment, and Accreditation. You will log in to "Student Online Services" to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted.