

Syllabus for GIS 4651, Section 001
Contagion: How Things Spread
Fall 2016
8:30 am – 9:45 am, G-138

Professor: Dr. Daniel J. Mallinson

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Course Webpage	Link

Course Description

This course will explore the imagery of contagion drawn from the study of infectious disease and how it has been applied in diverse disciplines such as political science, sociology, psychology, and business, among others. The course will begin with an overview of network theory and how different aspects of our diverse world are connected. It will then examine the origin of the contagion concept - infectious disease - before spending the remainder of the semester considering how scholars use the language of contagion to explain the spread of policies, conflict, behavior, emotions, financial crises, and new technologies. One thematic thread discussed throughout the class will be the aspect of fear that accompanies the notion of contagion and how that can bias our assessment of the benefits of the things that are spreading (e.g., new technology). Students will each take responsibility for leading discussion on at least one day of class. In addition to leading class discussion, students will complete reaction essays throughout the semester. Students will see how scholars draw from disparate fields of study when developing explanations for their own phenomena of interest. They will critically evaluate the application of this imagery to different fields and how contagion is pictured in popular culture. And, of course, we will talk about zombies.

Prerequisites: There are no specific prerequisites for this course.

Learning Goals and Objectives

- Goal 1: Understand how scholars describe and measure contagion
 - Objective 1a: Understand the basic outlines of network theory and how it applies to students' lives
 - Objective 1b: Understand and apply basic mathematical models of contagion
 - Objective 1c: Learn the biological origins of contagion
- Goal 2: Think critically about how contagion applies to other fields
 - Objective 2a: Critically evaluate the scholarly application of contagion imagery beyond the study of infectious disease
 - Objective 2b: Critically evaluate the presentation of contagion in popular culture
- Goal 3: Develop written and verbal communication skills
 - Objective 3a: Gain experience guiding open discussion of complex topics
 - Objective 3b: Learn how to write short critical analyses of course texts and discussions

Methods for Learning and Teaching: This course will contain a mixture of class discussion, in-class activities, course readings, and reaction essays. It is vital for your own comprehension of the course material that you come to class prepared to discuss the readings and any relevant happenings in the news and popular culture.

Reaching Our Goals

Attendance: Your attendance in class is always expected. Attending class will allow you to keep up with the course and provide for meaningful discussion as a class. Please contact me via e-mail if you are unable to attend class. I will follow the University's attendance policy when it comes to excused absences.

Preparation and Participation: I expect you to read the assigned material before class and be able to discuss the material with your peers. This is a capstone seminar class, so discussion is not only encouraged, it is required. Additionally, you will be expected to write reaction essays based on what we discuss in class.

Do Not Suffer in Silence: If you are struggling, please do not suffer in silence throughout the course. Instead, let me know — as soon as possible — what things are not making sense and we can work it out. If you are having a problem of any kind in the course, please talk to me about it.

Be Flexible: While the syllabus represents an agreement between us, I reserve the right to revise and modify it throughout the course, if it is necessary to achieve our goals. Situations beyond either of our control can emerge that require changes to the course. I will notify you right away when any changes are made.

Cell Phones and Laptops: Please be respectful of your fellow students and me by silencing your cell phone during class and limiting laptop use to only class-related activity.¹

E-mail Policy: I do not guarantee responses to e-mails in the evenings or on weekends. I will, however, work to respond to e-mails on the next business day (M-F).

Readings

The following books are required for the course:

Shah, Sonia. 2016. *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond*. Sarah Chrichton Books. ISBN: 978-0374122881.

Ionesco, Eugene. 1994. *Rhinoceros and Other Plays*. ISBN: 978-0802130983.

Price-Smith, Andrew T. 2008. *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization*. MIT Press. ISBN: 978-0262662031.

Drucker, Ernest. 2011. *A Plague of Prisons*. The New Press. ISBN: 978-1595588791.

Assessing Your Progress Towards Our Goals

The following types of assessment will be used to track your progress towards meeting our course goals: leading class discussion, a zombie story and math exercise, HIV modeling and ethics exercise, reaction essays, and class participation. Each component represents the following percentage of your final grade:

Shah Essay	5%
Reaction Essays	40%
Zombie Math Exercise	15%
HIV Modeling and Ethics Exercise	15%
Participation	25%

¹In fact, research demonstrates that students who take handwritten notes generally perform better than those that use laptops: Mueller, Pam A. and Daniel M. Oppenheimer. 2014. "The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking." *Psychological Science* 25(6): 1159-1168.

We will use the following grade scale:

Letter	Percent
A	94 to 100
A-	90 to 93
B+	87 to 89
B	83 to 86
B-	80 to 82
C+	77 to 79
C	73 to 76
C-	70 to 72
D	60 to 69
F	59 and below

Reaction Essays: You will need to complete at least six reaction essays responding to a course topic. You are not limited to six, but I will keep the highest six essay grades at the end of the semester. This will help you to learn how to critically respond to literature and class discussion. In each essay, you will need to evaluate the week's readings using the [Critical Thinking Community's](#) elements of thought and structures. You will need to identify how writers are applying the ideas of contagion from infectious disease to the week's topic (e.g., public policy). Based on this analysis, you will make an argument for whether or not this application makes sense and where there are potentially holes in the logic. In addition to these six, everyone is required to complete the first essay on the Shah book. See [Appendix A](#) for more information.

Zombie Math and Story Exercise: See [Appendix B](#) for more information.

HIV Modeling and Ethics Exercise: See [Appendix C](#) for more information.

Participation: Attending class is incredibly important and active participation in class discussion is a must for a senior seminar. Thus, attendance and participation will represent 25 percent of your final score. Your attendance forms the baseline of your final participation score and your level of in-class participation during the course determines where you fall in the related grade band. Meaning, if you are active in participating, but only attend 70 percent of class sessions, you will likely receive a 79 for participation. Thus, you receive credit for both showing up and participating.

Students also have an obligation to notify me within the first three weeks of the semester if they will miss any class session due to a religious observance. I am pleased to do this, but will need notification in order to plan make-up work.

Extra Credit: I will extend up to 1 percentage point of extra credit to your final grade for

attending certain events throughout the semester (one point for each event). I will announce to the class when these events occur and when a related extra credit assignment is due. You must submit a 2-3 page discussion of the event and how it applies to what we are learning in class to a dropbox on Blackboard.

Late Work: A 10% per week reduction in grade will result from the submission of late work (not applied to approved make-up work).

Make-Up Grades: You are allowed to make-up academic work only in the case of excused absences. These absences may include missing class for a University-sanctioned activity (with proper documentation), illness, religious observance, or family emergency. If you know in advance that you are going to miss class, please contact me before the absence to make arrangements for completing the work. If you are absent for an unexpected reason, please check in with me as soon as possible. You will have one week from the day of your return to class to make up a missed assignment.

Academic Honesty

Stockton University takes violations of academic dishonesty seriously. Observing basic honesty in one's work, words, ideas, and actions is a principle to which all members of the community are required to subscribe.

All course work by students is to be done on an individual basis unless I clearly state that an alternative is acceptable. Any reference materials used in the preparation of any assignment must be explicitly cited. Students uncertain about proper citation should speak with me and review the following [website](#) about conducting research and properly citing sources. Furthermore, please choose a [single citation style](#) and stick with it.

In an examination setting, unless I give explicit prior instructions to the contrary, whether the examination is in class or take home, violations of academic integrity shall consist but are not limited to any attempt to receive assistance from written or printed aids, or from any person or papers or electronic devices, or of any attempt to give assistance, whether the one so doing has completed his or her own work or not.

Lying to me also constitutes a violation of academic integrity.

In cases of any violation of academic integrity it is my policy to follow procedures established by the University. My first approach is to view this as a learning opportunity. The student will have an opportunity to make up the assignment for half credit (within four days of my discovering the violation). If the student does not make up the work or continues to use plagiarized material, the student will receive a zero on the assignment and the violation will be reported to the Provost's office. More information on academic integrity and procedures

followed for violation can be found at <http://intraweb.stockton.edu/eyos/page.cfm?siteID=209&pageID=17>.

Accessibility

In accordance with the Americans with Disabilities Act of 1990 as amended and Sections 504 and 508 of the Rehabilitation Act, students with a documented disability and need accommodations, are encouraged to register with the Learning Access Program (LAP). Registration for support services is strictly voluntary and on a confidential basis. Support services provided by LAP are meant to help students devise strategies for meeting the University's educational demands and to foster independence, responsibility, and self-advocacy. The Learning Access Program can be found on campus in room J-204 or online at www.stockton.edu/LAP. Please call 609-652-4988 or send an email to LAP@stockton.edu for more information. Once you have received an accommodation letter from LAP, please contact me to privately discuss your needs as soon as practical to ensure that reasonable accommodations are implemented.

Course Schedule

We will attempt to follow this schedule as closely as possible, but we may take more time on some concepts and less time on others. For this reason, a digital version of this syllabus can be found on [my website](#). Any slides used in class will be posted there prior to class. All changes to the schedule will be announced in class or via e-mail and the online syllabus will be constantly up-to-date. Required course readings are listed and due dates for assignments are in bold. If you have trouble, please do not hesitate to e-mail me.

Week 1: Introductions

- September 7: Introduction to the class and each other
- September 9: Introduction to critical thinking
 - Review the [Elements and Standards of Critical Thinking](#)
 - Read [Defining Critical Thinking](#)

Week 2: The Spread of Infectious Disease

- September 12: Introduction to the Language of Contagion
 - Shah, Sonia. 2016. *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond*. Sarah Chrichton Books. Chapters 1 – 4.
- September 14: Cholera and Beyond
 - Shah. 2016. Chapters 5 – 7.
- September 16: Cholera and Beyond
 - Shah. 2016. Chapters 8 – 10.

Week 3: Networks, Zombies, and Math

- September 19: Network Theory
 - *Social Network Analysis: Theory and Applications*. Theory Chapter.
 - **Shah Reaction Essay Due.**
- September 21: Math and Zombies
 - Brauer, Fred. 2006. “[Some Simple Epidemic Models](#).” *Mathematical Biosciences and Engineering* 3(1): 1-15.
- September 23: Math and Zombies
 - Munz, Philip, Ioan Hudea, Joe Imad and Robert J, Smith?. 2009. “[When Zombies Attack!: Mathematical Modelling of an Outbreak of Zombie Infection](#).” In *Infectious Disease Modelling Research Progress* eds. J.M. Tchuente and C. Chiyaka. Nova Science Publishers, Inc. pp. 133-150.
 - In-class exercises

Week 4: Contagion, Fear, and Culture

- September 26: Contagion in Film
 - Watch *Outbreak* in class
 - **Zombie Math and Story Due.**

- September 28: Contagion in Film
 - Watch *Outbreak* in class
- September 30: Fear
 - Boluk, Stephanie and Wylie Lenz. 2010. “Infection, Media, and Capitalism: From Early Modern Plagues to Postmodern Zombies.” *Journal for Early Modern Cultural Studies* 10(2): 126-147.
 - Sturmer, Stefan, Anette Rohmann, Agostino Mazziotta, Birte Siem, and Maria-Luisa Barbarino. 2016. “Fear of Infection or Justification of Social Exclusion? The Symbolic Exploitation of the Ebola Epidemic.” *Political Psychology (Early View)*.

Week 5: Contagion in Classical Literature

- October 3: Rhinoceros
 - Ionesco, Eugene. 1994. *Rhinoceros and Other Plays*. Act One.
 - **Zombies and Fear (Weeks 3 and 4) Reaction Essay Due.**
- October 5: Rhinoceros
 - Ionesco. 1994. Act Two.
- October 7: Rhinoceros
 - Ionesco. 1994. Act Three.

Week 6: HIV/AIDS and the Politics of Public Health

- October 10: Initial Response to HIV/AIDS
 - Watch *And the Band Played On* (1993) in class.
 - **Rhinoceros Reaction Essay Due.**
- October 12: Initial Response to HIV/AIDS
 - Watch *And the Band Played On* (1993) in class.

- October 14: Modeling HIV and Quarantine Ethics
 - Rapatski, Brandy, Petra Klepac, Stephen Dueck, Maoxing Liu, and Leda Ivic Weiss. 2006. “[Mathematical Epidemiology of HIV/AIDS in Cuba During the Period 1986-2000.](#)” *Mathematical Biosciences and Engineering* 3(3): 545-556.

Week 7: Contagion and Chaos

- October 17: Health and Security
 - Price-Smith, Andrew T. 2008. *[Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization.](#)* Boston, MA: MIT Press. Introduction, Chapters 1 – 2.
 - **Modeling HIV and Quarantine Ethics Assignment Due.**
- October 19: Health and Security
 - Price-Smith. 2008. Chapters 3 – 5
- October 21: Health and Security
 - Price-Smith. 2008. Chapters 4 – Conclusion

Week 8: Contagion and Conflict

- October 24: Civil War
 - Lane, Matthew. 2016. “[The Intrastate Contagion of Ethnic Civil War.](#)” *Journal of Politics* 78(2): 396-410.
 - Bosker, Maarten and Joppe de Ree. 2012. “[The spread of civil war.](#)” *Vox.* January 18.
 - **Price-Smith Reaction Essay Due.**
- October 26: Civil War Quarantine
 - Danneman, Nathan and Emily Hencken Ritter. 2014. “[Contagious Rebellion and Preemptive Repression.](#)” *Journal of Conflict Resolution* 58(2): 254-279.
- October 28: The Arab Spring
 - Lynch, Marc, Deen Freelon, and Sean Aday. 2014. “[Syria in the Arab Spring: The integration of Syria’s conflict with the Arab uprisings, 2011-2013.](#)” *Research & Politics* October-December: 1-7.

Week 9: Emotional Contagion

- October 31: Emotions and Ethical Controversy
 - Kramer, Adam D. I. et al. 2014. “[Experimental evidence of massive-scale emotional contagion through social networks.](#)” *PNAS* 11(24): 8788-8790.
 - Huang, Jessie. 2015. “[Ethics of Studying Emotion Contagion.](#)” Weblog.
 - Coviello et al. 2014. “[Words on the Web: Noninvasive Detection of Emotional Contagion in Online Social Networks.](#)” *Proceedings of the IEEE*. 102(12): 1911-1921.
 - **Contagion and Conflict Reaction Essay Due.**
- November 2: No Class – Preceptorial Advising
- November 4: Leadership, Emotional Contagion, and the 2016 Presidential Election
 - Humphrey, Ronald H. 2002. “[The Many Faces of Emotional Leadership.](#)” *The Leadership Quarterly* 13(5): 493-504.
 - Johnson, Stefanie. 2009. “[Do You Feel What I Feel? Mood Contagion and Leadership Outcomes.](#)” *The Leadership Quarterly* 20(5): 814-827.

Week 10: Public Policy

- November 7: Leadership, Emotional Contagion, and the 2016 Presidential Election
 - Lewis, Kristi M. 2000. “[When Leaders Display Emotion: How Followers Respond to Negative Emotional Expression of Male and Female Leaders.](#)” *Journal of Organizational Behavior* 21(2): 221-234.
- November 9: Policy Diffusion
 - Boushey, Graeme. 2010. *[Policy Diffusion Dynamics in America.](#)* Cambridge University Press. Chapters 1 – 3.
- November 11: TBD
 - TBD

Week 11: Mass Incarceration

- November 14: Mass Incarceration
 - Drucker, Ernest. 2011. *A Plague of Prisons*. The New Press. Chapters 1 and 4.
 - **Emotional Contagion Reaction Essay Due.**
- November 16: Mass Incarceration
 - Drucker. 2011. Chapters 5 – 7.
- November 18: Mass Incarceration
 - Drucker. 2011. Chapters 8 – 10.

Week 12: Violence

- November 21: School Shootings
 - Towers, Sherry et al. 2015. “[Contagion in Mass Killings and School Shootings.](#)” *PLOS One* 10(7): e0117259.
 - Gladwell, Malcolm. 2015. “[Thresholds of Violence.](#)” *The New Yorker*. October 19.
 - Carey, Benedict. 2016. “[Mass Killings May Have Created Contagion, Feeding on Itself.](#)” *The New York Times*. July 26.
 - **Mass Incarceration Reaction Essay Due.**
- November 23: Suicide
 - Gould, Madelyn et al. 2003. “[Media Contagion and Suicide Among the Young.](#)” *American Behavioral Scientist* 46(9): 1269-1284.
- November 25: No Class – Thanksgiving

Week 13: Behavior

- November 28: Obesity
 - Cristakis, Nicholas A. and James H. Fowler. 2007. “[The Spread of Obesity in a Large Social Network over 32 Years.](#)” *The New England Journal of Medicine*. 357: 370-379.
 - **Violence Reaction Essay Due.**
- November 30: More Than Yawning
 - Gregoire, Carolyn. 2016. “[7 Behaviors That Are Actually Contagious, According to Science.](#)” *The Huffington Post*. Updated March 26.
 - Zaki, Jamil. 2016. “[Kindness Contagion.](#)” *Scientific American*. July 26.
- December 2: Happiness
 - Cerretani, Jessica. “[The Contagion of Happiness.](#)” Harvard Medical School.

Week 14: Economics and Marketing

- December 5: Financial Contagion
 - Moser, Thomas. 2003. “[What is International Financial Contagion?](#)” *International Finance* 6(2): 157-178.
 - OECD. 2012. “[Financial Contagion in the Era of Globalized Banking.](#)” *OECD Economic Department Policy Notes*. No. 14. June.
 - **Behavior Reaction Essay Due.**
- December 7: Marketing
 - Herrera et al. 2015. “[Understanding Social Contagion in Adoption Processes Using Dynamic Social Networks.](#)” *PLoS ONE* 10(10): e0140891.
- December 9: Catch Up Day

Week 15: Finals Week

- December 12
 - **Economics and Marketing Reaction Essay Due.**

Appendices

A Reaction Essays

Reaction essays are an opportunity for you to critically evaluate how a given week's readings teach us about the idea of contagion and how well they apply and build on the framework we examined from the spread of infectious disease. In these essays, you are not telling me what they say, but what is important about what they say. Some weeks our authors will address all aspects of contagion (e.g., contact, quarantine, vectors, etc). In other weeks the readings and movies will introduce new ideas (e.g., fear and conformity). Our readings will vary in how well they apply the concepts of contagion we discovered from Shah's book on pandemics.

In each essay, you will need to evaluate the week's readings using the [Critical Thinking Community's](#) elements of thought and structures. You will need to identify how writers are applying the concepts of contagion to their particular topic or what new facet of contagion they are revealing. Based on this analysis, you will make an argument for whether or not this application makes sense and where there are potentially holes in the logic.

Each essay is to be submitted via Blackboard dropbox before the start of class

The Shah Essay

While you can choose the six topics you would like to write an essay on, you are required to submit the first essay. For this essay, I would like you to discuss the contagion concept(s) that emerge from each chapter in her book. For example, chapter 5 introduces the concept of quarantine. The concepts are not always obvious at the outset of the chapter, so this requires paying attention to the new things that she defines in each chapter.

This essay does not have to conform to the traditional narrative format. It is perfectly acceptable to provide bullet points for each chapter with definitions of the key concepts.

This essay will provide us with a common framework of contagion concepts for the purpose of evaluating subsequent readings.

Due Date: September 19

B Zombie Math Assignment

There are two parts to this assignment. In the first part, I would like you to establish your own contagion model using the concepts we discussed in class. In doing so, discuss the assumptions you are relying on. Then, choose two assumptions and explain how the outcome of the model (i.e., the spread of the disease) would change if the assumptions were altered. This first section should be no more than a page or two.

In the second section, I want you to write a creative zombie story that provides context for the model you present in the first part. As you write about the progression of the spread of zombies, incorporate the two changes in assumptions in the story. For example, you may alter an assumption regarding our ability to treat the illness in the first section and then add to your story an explanation of how survivors are getting better at killing zombies. The goals of this section are two-fold. First, be creative! Second, you are demonstrating the relationships between mathematical models of contagion and real-life stories. The second part can be as long as you like, but no shorter than three double spaced pages. Have fun with it!

Due Date: September 26

C HIV Modeling and Quarantine Ethics Assignment

Similar to the zombie math assignment, this assignment has two parts. First, you need to establish a conceptual model of contagion and then explain how quarantine fits into that model. How does the model change when your assumptions change regarding people's compliance with quarantine and variation in the infectiousness of a disease across its lifecourse (like in the case of HIV/AIDS).

In the second part of the assignment, I want you to consider two different approaches to dealing with the emergence of HIV/AIDS. As we learned in class, Cuba aggressively quarantined and contact traced HIV positive citizens. The United States has taken a less intrusive approach of raising awareness and making attempts at reducing the barriers to disease prevention, detection, and treatment. Cuba has experience a remarkably low rate of infection, whereas the United States continues to experience a relatively high infection rate. Think about the ethical implications of long-term quarantine and contact tracing in Cuba. Then, think about the ethical implications of the less intrusive approach in the United States. What are the ethical problems with each? What are the policy advantages of each? Which approach do you think is most justifiable and why?

Due Date: October 17