

ZOO 4956: Overseas Studies (3 credits)  
**UF-in-Perú: Emerging Disease in the Americas**

Summer A 2017

Instructor: Thomas J. Hladish

Office hours: Scheduled as needed

Text: Infectious Disease: A Very Short Introduction, Wayne & Bolker 2015

This course provides an overview of human infectious diseases and their dynamics. After an initial look at how epidemics grow and the ways different professions think about diseases, each week will focus on a different mode of transmission (e.g. air borne, food and water, sexual interactions) and the associated diseases. As epidemiology is a highly integrative field, we will talk about everything from microbiology to statistics, pharmacology to public health decision making. There will be few lectures and no tests, but a lot of emphasis on critical thinking and effective oral and written communication.

### PREREQUISITES

*Prereq: BSC 2011 and 2011L with minimum grades of C and undergraduate advisor permission.*

### COURSE REQUIREMENTS AND ASSESSMENT

-Class participation	20%
-Simulation assignment	10%
-Short essays (3)	30%
-Presentation	10%
-Final project	<u>30%</u>
	100%

*Nota bene: This class will be taught in English. Yes, hic est ironia.*

### Attendance, participation and engagement

These requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with UF policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

*Class meetings:* Attendance at class meetings is mandatory. The class will generally meet for two hours on each day as scheduled below. Changes to the schedule, e.g. to accommodate a guest lecturer or to deal with unpredicted logistical challenges, will be announced at least a week in advance and made in coordination with other scheduled activities. Due to the active learning nature of the class, your presence and participation are essential. Any missed classes for reasons other than sickness will be penalized by a 5% deduction from your grade as well as a zero for class participation on that day. If you are sick and thus absent, please notify me within 24 hours by email. Class is offered for a letter grade; no S/U option is possible. The topics listed below are examples of what we will discuss in class, but we will also make comparisons with (genetically, symptomatically, or mechanistically) related diseases. We will try to incorporate relevant experiences from your service placements, as well as news of ongoing or emerging epidemics.

	Week	Reading	Topic	Assignment(s)
Tue-Fri	9-12 May	Chapters 1-2	Disease dynamics	SIR, $R_0$ simulations
Mon-Thu	15-18 May	Chapter 3	Respiratory infections	Short essay
Mon-Thu	22-25 May	Chapter 5	GI infections	Short essay
Mon-Thu	29 May-1 June	Chapter 4	STIs	Short essay
Tue-Fri	6-9 June	Chapter 6	Vector-borne infections	Presentation
Mon-Thu	12-15 June	Chapter 8	Looking ahead	Final Project

*Class participation:* You must do the reading prior to coming to class on Monday (or Tuesday, for the weeks one and five). Please come to class prepared with three questions you had from the reading. The second through fourth weeks will follow a common structure. The chapter and any related readings will be discussed early in the week. A short essay (described below) will be due in the middle of the week. The latter half of the week will be devoted to activities like revising essays, small group work investigating related content and presenting to the class, and guest lectures. As an example of small group topics, for influenza, groups might research vaccination policies and/or popular perception of vaccines in Perú; models of seasonal dynamics in the Northern vs. Southern hemisphere; etc.

*SIR simulation assignment:* At the end of the first week, you will use simulation software called EpiFire to explore the relationship between how infectious a disease is and how many people end up getting infected. In lieu of a normal essay, you will make a figure illustrating this relationship using data you generate. This figure should be accompanied by a 50-100 word caption explaining the relationship.

*Short essays:* For weeks 2-4, you will write short (300-word) essays. The topics and style of the essays will vary, with assignment details provided to you the previous week. As an example, for the first essay (on influenza), please consider the reading and compare and contrast influenza in Peru vs. in Gainesville, Florida. As part of your short essay, please speak with at least one person in your placement about their perception of the challenges of the flu, its incidence, severity, etc. and include this either within your essay or as a short appendix. Please provide detailed references, including the name of the practitioner with whom you spoke. Short essays will be due by 1 am Wednesday of each week. Late assignments will be penalized 5 points each day or fraction thereof.

*Final project:* For your final project, you will work in small groups to prepare a high-quality article (think *New Scientist*) and oral presentation about a recent discovery in epidemiology. The audience you are writing for is well-educated and scientifically literate, but not necessarily experts in your subject—essentially, your classmates. Your article should incorporate illustrations or images, and citations from primary literature. Your final project grade will be based on daily progress during the last week, and will depend both on your individual work, and on the results of your collaborative work.

## UNIVERSITY AND PROGRAM POLICIES

### Academic Integrity

All students are required to abide by the Academic Honesty Guidelines of the University. The UF Honor Code reads: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” For more information please refer to <http://www.dso.ufl.edu/studentguide>.

### Accommodations

Students requesting classroom accommodation must register with the Dean of Students Office well in advance of the program. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Additionally, because this is an international program, students must meet with the instructor prior to arrival in Peru to determine how accommodations will be handled. For more information see <http://www.dso.ufl.edu/drc>.