MDA 350   Community Health Scan

Units:	4
Term:	Fall 2016
Class Hours:	August 25- December 8, 2016, Thursdays, 2:00- 5:50 p.m.
Class Location:	AHF 145D (Spatial Sciences Institute classroom)

Instructor:	Denny Green, M.D.
Office:	AHF B55
Office hours:	Thursdays from 11am – noon, and by appointment
Contact Info:	dennisgr@usc.edu; 310-709-3736

Instructor:	Darren Ruddell, Ph.D. GISP
Office:	AHF B57F
Office hours:	Tuesdays from 11:30 a.m. – 12:30 p.m., and by appointment
Contact Info:	druddell@usc.edu; 213-740-0521

Rationale

Health, medical care, public health, being a doctor, health care is too expensive, work harder. Make it work. Fix it. Always care, give patients time, listen better; but stay to the schedule, because you are behind, doctor. If you have hung in and are reading this sentence, this course is meant to help you and anyone considering the wonderful life of helping people in the health field. Our goal is to go over what every pre-health career student, every person actually, ought to know and probably isn't being told about both the complexity and the simplicity of caring for each other.

This course will also provide you with the skills to collect and analyze data to understand a community's health and identity by applying spatial analysis techniques to map and assess health indicators of the community. As the culminating experience of this class, you will work in teams to study health indicators in a local community, and then you will develop and propose a plan to help the people in that community.

Catalogue Description

The social determinants of health; the introduction to, and uses of, geographic information systems (GIS) as a method to analyze relevant health data.

Learning Objectives

In this class students will:

- Understand the social determinants of health
- Map and spatially analyze community within Los Angeles
- Be introduced to maps and geospatial reasoning technologies
- Be introduced to the concepts of public health and health disparities
- Be introduced to the research process through the practice of observation, construction of a hypothesis, testing and implementation
- Review evidence-based public health practices used in communities
- Learn how to build capacity to improve community health status
- Learn to describe surveillance systems for monitoring health status in the community
- Discuss local and national policies that have an effect on community health
- Conduct an assessment using the County Health Rankings Model as a framework

Course Organization

This four-unit course will be comprised of classroom lectures, field lectures, field work, group projects, mapping of the neighborhood, use of secondary data and collecting data in the field through visual mapping, interviews and observations.

All course materials, meeting sites, and secondary data will be on the course Blackboard site. As a registered student you will have access to the course materials on the first day of class.

Technological Proficiency and Hardware/Software Required

The modeling software and geospatial data required for course assignments will be accessed using computing resources provided by the Spatial Sciences Institute.

Evaluation Criteria

A. Class Participation - 10%
B. GIS Assignments - 30%
C. Community Scan Map - 20%
D. Group Project Paper - 20%
E. Group Presentation on Community Scan and Proposed Health Intervention - 20%

Students are expected to attend each class on time and discuss the assigned readings in an informed and thoughtful manner. Group discussions will focus on the readings and case studies, with two student facilitators prepared to lead the team discussions. Each student is graded for

participation based on both large class and small group discussions. More than two unexcused absences will result in a reduction of your grade.

Reading List

Required:
Davidson, Alan. *Social Determinants of Health*. Oxford University Press, 2015.

Kurland, Kristen S. and Gorr, Wilpen L. *GIS Tutorial for Health (Fifth Edition)*. Esri Press, Redlands, California, 2014.

Recommended:
Guest, Charles, Ricciardi, Walter, Kawaschi, Ichiro, and Lang, Iain eds., *The Oxford Handbook of Public Health Practice,* Oxford: Oxford University Press, 2013.

Course Schedule: A Weekly Breakdown

	Topic and Class Activities	**Readings and Assignments**	**Deliverables**
Week 1 8/25/16	**Introduction to the Course; and Site Visit** Introduction to the class and a discussion of health disparities and community health. Site visit to MDA-350 course study area.	Assigned: Reading: Weder et al. (2015); Felitti et al. (1998) Watch: Public Health Videos, see Blackboard Site visit written reflection	No deliverables.
Week 2 9/1/16	**Introduction to Health, and Introduction to GIS** An introduction to health and its determinants; overview of GIS.	Assigned: Reading: -Davidson Introduction, and Chapter 1 & 2 GIS Assignment 1	Submit by 9/1: Site visit written reflection

Week 3 9/8/16	**Three Health Models; and GIS continued** A discussion on three different health models; reflection on GIS applications.	Assigned: Reading: -Davidson Chapters 3,4,5 GIS Assignment 2	Submit by 9/8: GIS Assignment 1
Week 4 9/15/16	**Social Determinants of Health; and Site Visit** A discussion on how community and external forces influence health; discussion on spatial analysis. Site visit to Metro Health Station	Assigned: Reading: -Davidson, Chapters 6 & 7 -Fielding, Chapter 1 & 2 GIS assignment 3	Submit by 9/15: GIS Assignment 2
Week 5 9/22/16	**Local Social Determinants of Health; GIS Data Collection** The influence of local community in determining social health; introduction to Collector for ArcGIS.	Assigned: Reading: -Marmot, *The Lancet* (2008) -Civil Society Report (2007) -Declaration of Alma(1978) GIS assignment 4	Submit by 9/22: GIS Assignment 3

Week 6 9/29/16	**Social Determinants of Health – Global Responses** Global discourse and actions on social determinants of health; GIS field work.	Assigned: Reading: TBD GIS assignment 5	Submit by 9/29: GIS Assignment 4
Week 7 10/6/16	**Site Visit and Primary Data Collection** Primary data collection in the field using Collector for ArcGIS.	Assigned: Reading: -Hertzman (2010) GIS Assignment 6	Submit by 10/6: GIS Assignment 5

Week 8
 	
10/13/16
	Data Processing; the Science Underlying Social Determinants of Health
	Download, organize, and analyze data collected in the field; discuss the science underlying social determinants of health.
		Assigned:
		
		Watch:
		-Bruce McEwen (2016)
		    -31:08 minutes
		-PBS Nova piece (2014)
		    -52:37 minutes
		And prepare a 1 page summary of the 2 videos
		
		GIS: Community Scan Map
			Submit by 10/13:
			
			GIS Assignment 6

Week 9 10/20/16	**Site Visit to Skid Row** Discuss videos from Week 8 and then visit Skid Row in downtown Los Angeles.	Assigned: Reading _**for Tues, Oct 25 evening event:**_ -O'Connell, p1-20, 181-185 -Boston Health Care...2010	Submit by 10/20: 1 page summary of the 2 videos

Week 10	**Visions & Voices; and Draft Map 1**	Assigned:	Submit by 10/27:
10/25/16 and 10/27/16	Visions & Voices program on homelessness on 10/25 from 7-9pm; and review of Community Scan Map Draft 1 on 10/27.	Reading: Los Angeles Food System Snapshot, 2013	Community Scan Map Draft 1
		The Truth about food deserts, LAFPC	
		GIS: Community Scan Map Draft 2	
Week 11	**Food Access and Health, and guest speaker**	Assigned:	No deliverables.
11/3/16	Discuss linkages between food access and human health; guest presentation by Rachel Surls, UC Sustainable Food Systems Advisor.	Reading: Housing and Health in Los Angeles County, 2015	
		Group Presentation on Community Scan and Proposed Health Intervention	
Week 12	**Community Housing Stock, and Draft Map 2**	Assigned:	Submit by 11/10:
11/10/16	Discuss connections between housing and health; and review of Community Scan Map Draft 2	Reading:	Community Scan Map Draft 2
		Historic Perspective, S Leonard Syme	
		Historic Perspective, Michael Marmot	
		Group Project Paper	

Week 13 11/17/16	**Group Presentation, and guest speaker** Group presentation on community scan and proposed health intervention; guest presentation by Ali Arastu, MD.	Assigned: Reading: Training medical students in the social determinants of health	Submit by 11/17: Draft group presentation on Community Scan and Proposed Health Intervention
Week 14 11/24/16	**Thanksgiving Holiday** No class.		No deliverables.
Week 15 12/1/16	**Group Presentation and Discussion** Final group presentation on community scan and proposed health intervention to industry professionals.		Submit by 12/1: Final group presentation on Community Scan and Proposed Health Intervention
Week 16 12/8/16	**Final Exam** Submit final group project paper by 4pm.		Submit by 12/8: Group Project Paper

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the

discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* https://policy.usc.edu/student/scampus/part-b/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu or to the *Department of Public Safety* http://adminopsnet.usc.edu/department/department-public-safety. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Relationship and Sexual Violence Prevention Services* http://engemannshc.usc.edu/rsvp/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Academic Accommodations

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP and it should be delivered to me early in the semester. DSP is located in STU 301 and is open from 8:30am to 5:00pm, Monday through Friday (213-740-0776; study@usc.edu).