USC Dornsife
Dana and David Dornsife
College of Letters, Arts and Sciences
Spatial Sciences Institute

SSCI 601a, Population, Health & Place Research Practicum

Syllabus

Units: 2

Term — Day — Time: Summer 2017 (Session 050) – Tuesdays and Thursdays – 10:00 a.m.-12:00 p.m.

Location: TBD

Instructor: Robert O. Vos, Ph.D.
Office: AHF B57B
Regular Office Hours: Thursdays 9 a.m.-10 a.m. PT
Also available by appointment via email.

Contact Info: vos@usc.edu,213-821-1311,
www.bluejeans.com/2418690355

Library Help: Sherry Mosley
Office: VKC B40C
Office Hours: By appointment
Contact Info: smosley@usc.edu, 213-740-8810 (office)

IT Help: Richard Tsung
Office: AHF 145D
Office Hours: By appointment
Contact Info: ctsung@usc.edu, 213-821-4415 (office)

Course Description

The overarching goal of this course is to support Ph.D. students in Population, Health and Place (PHP) as you develop the skills to conduct interdisciplinary research. The Research Practicum, which is taken over consecutive summers (i.e., SSCI 601a followed in the next summer by SSCI 601b), targets the development of research skills by: (1) providing research experience through participation in one or more supervised research projects prior to the dissertation; (2) involving students in conducting research early in their doctoral studies; (3) increasing the students' research skills; and (4) developing skills in communicating with an interdisciplinary audience – in writing journal articles, conference papers, extended abstracts, thesis proposals, grant proposals, and speaking at professional meetings.

Learning Objectives

On completion of this course, students will be able to:

- Integrate population science, public health, and spatial science theory and practice into research design.
- Assess complex population science, public heath, and geospatial data for fitness in research designs.
- Discuss how methodologies are integrated in at least two research designs that straddle the intersection of population, health, and place.
- Formulate and execute a collaborative research project on urban health indicators using data and methods from population, health, and place.
- Formulate a review article at the intersection of population, health, and place that may serve as a key element of the dissertation proposal.

On completion of the successor to this course, SSCI 601b, students will be able to:

- Write a publishable quality manuscript (i.e. a journal article or a substantial refereed conference paper) on research findings that includes stating a problem and research question, identifying relevant literature, detailing a methodology, reporting results, and reaching conclusions.

Prerequisite(s): None
Co-Requisite (s): None
Concurrent Enrollment: None
Recommended Preparation: Students must be enrolled in the USC PHP PhD program

Course Notes

This course is intended to help students along their research trajectories, not to impose arbitrary hurdles or busy work. Therefore, relative to other courses in the PHP program, there will be a limited set of required readings and related assignments. Instead, the course will be devoted to three major goals: a collaborative project on urban health indicators, an individual review article,

and a learning contract leading to your dissertation qualifying proposal. The course meets for the first 6 weeks of the summer and the urban health indicators project will be completed in this time. However, as fellowship support extends throughout the summer, the review article will be due at the end of the summer term. The learning contract will include goals and activities extending slightly longer than one year.

To produce a collaborative project on urban health indicators, we will draw on relevant background literature to articulate the rationale for indicator selection, specify methods for operationalizing indicators from secondary data, and choose one or more metropolitan statistical areas in which to measure the indicators. Some of this effort will be accomplished during class with the instructor acting as a "guide" and sounding board, and some of the effort will be accomplished outside of class both individually and in collaboration with classmates.

The second goal is to produce a review article according to your own research interests. It is likely that this article will synthesize and develop existing research designs and methods in population, health, and place to create a new, interdisciplinary frame to solve an important public health problem. To facilitate this, we will discuss your research interests, look at relevant examples of review articles, and develop a learning contract that will guide your work through the summer and into the next academic year. The article will likely become a key part of your dissertation qualifying proposal, eventually be revised to be included in your dissertation manuscript, and may be published on its own.

In writing the individual learning contract, students should declare activities and goals for the entire upcoming academic year that spans SSCI 601a and 601b with milestones for each semester. The major milestone for SSCI 601a is the review article. The milestones for SSCI 601b should include a research article and a dissertation qualifying proposal. The qualifying proposal will incorporate the review article as well as proposed methods for a series of discrete research projects that will form the chapters of the dissertation. The research article produced at the end of SSCI 601b will function as a pilot for one of these chapters.

Substantial time will be devoted to assisting students with formulation of the review article and the learning contract. The expectation is that achieving this research goal will help you move forward towards your PHP Ph.D. degree. In general, this course will give you the opportunity to talk about your research with other scientists and among yourselves, to help clarify the specific hypotheses or research questions you want to explore and the methodology you will use to pursue your goals.

This class can only work as intended if research goals are rapidly developed. By the end of Week 3, we will have the urban health indicators project and related individual tasks clearly delineated. By the end of Week 5 your individual learning contract for the review article must submitted for approval.

Technological Proficiency and Hardware/Software Required

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

Required Readings and Supplementary Materials

The following three textbooks are required for this class; these are available from online outlets such as Amazon. Please purchase these immediately because reading assignments from these are required starting in Week 2 of the course:

1. Guest, Greg and Emily E. Namey. 2015*. Public health research methods*. Thousand Oaks, CA: Sage Publications, Inc. (~$100 hard cover, ISBN: 978-1-4522-4133-3 and ~$50 e-book, ISBN 978-1-4833-1142-5)
2. Montello, Daniel. R., and Paul C. Sutton. 2013. *An introduction to scientific research methods in geography and environmental studies*. 2nd ed. Los Angeles, CA: Sage. (~$39 paper; ISBN-10: 1412902878)
3. Turabian, Kate L., Wayne C. Booth, Gregory.G. Colomb, and Joseph M. Williams. 2013. *A manual for writers of research papers, theses, and dissertations*. 8th ed. Chicago, IL: University of Chicago Press. (~$10 paper; ISBN-13: 978-0-226-81638)

The above materials will be supplemented with various articles and book chapters as indicated on the course schedule and will be made available on Blackboard under the Readings tab.

On the Course Schedule, each reading is labeled in one of three categories with expectations as described below:

- ***All –*** All students will read in detail and be prepared to engage in a discussion led by the instructor or a guest scholar.
- ***Assigned –*** One student will be assigned to read and present this reading in detail with the expectation that other students will have familiarity suitable for a general discussion during seminar.
- ***Optional –*** One student may choose to read and present this reading in detail if it suits his or her interests and needs.

Description and Assessment of Assignments

Students must achieve the three major goals of the course, stay abreast of course readings, and participate in class discussion on a regular basis.

Class Participation – 5 pts. A class participation grade for the semester will be assigned based upon how actively students engage in the course, with the instructor, with guest scholars, and with fellow students.

Lead Discussion of Readings – 20 pts. Students will read, present, and raise questions for discussion of selected assigned or optional weekly readings. For these readings, students will provide a brief written outline for classmates to follow during their presentation. Specific assignments will be determined at the first meeting of the class. When leading discussions of seminar readings, students should strive to address the following aspects of the reading:

1. **Central theme** – Organize your presentation in terms of central themes or main points in the readings you are covering. Please relate the reading to methodological themes in the course and describe how ideas in the reading have been applied in other research you have read at the intersection of population, health, and place.
2. **Interdisciplinary connections** – Think of the central themes in terms of how they inform the intersection of the population, health, and place disciplines. If the method being described comes primarily from geography, sociology, or public health explain how it might be used in coordination with the other disciplines.
3. **Critical Evaluation** – Carefully assess the ideas in the reading and think about how the reading might or might not apply to research tasks at hand for yourself or others in the course. Describe how it does or does not inform your own research.
4. **Questions** – Raise questions for discussion and ideas needing clarification.

Model Review Article Evaluation - 10 pts. Students will choose a review article from a journal (or closely analogous journal) to the one they are targeting for eventual publication of their own article. Students will evaluate this article by "reverse engineering" its outline and comparing it against the style guide and stated standards of the journal in which it appeared.

First Collaborative Project Presentation – 5 pts. As a team, students will present the results of a rapid survey of the literature on urban health indicators. The rapid survey of literature will be used as a foundation to articulate objectives for the project, choose case study location(s), and propose an initial selection of indicators.

Second Collaborative Project Presentation – 5 pts. As a team, students will present potential data sets and strategies for processing data sets to measure the selected indicators. Data will be evaluated for fitness of use for the potential indicators.

Third Collaborative Project Presentation – 5 pts. As a team, students will present and discuss means of reporting and visualization of measured indicators.

Final Collaborative Project Presentation – 10 pts. As a team, students will deliver a slide presentation that conveys the methods and results of the urban health indicators.

Collaborative Project Written Report – 15 pts. Students will co-author a report on the urban health indicators project of sufficient quality to be featured on the Spatial Sciences Institute website. Students will also provide an executive summary for a general audience, for possible inclusion in the Spatial Sciences Institute newsletter.

Draft Learning Contract – 5 pts. To create a firm basis for further discussion, students will individually author a short briefing paper that expresses the topic for their review article and how they hope to use it to support their dissertation research, i.e., how it relates to potential dissertation topic(s).

Revised Learning Contract – 10 pts. To create a foundation for writing the review article throughout the summer, students will provide a revised description of the purpose and scope of the article and an abbreviated annotated bibliography of a minimum set of initial sources. Students will also specify goals and anticipated work through the next academic year, leading to the dissertation proposal.

Review Article Preliminary Presentation – 10 pts. Students will give a short slide presentation outlining their thoughts about specific sources and suggesting main claims they will make in their review article positing the value of some new intersection of the population, health, and place domain or extension of an existing body of work already at the disciplinary intersection.

Review Article Written Draft – 0 pts. Students will provide a written draft of the review article in the style and length of the identified target journal. Because this assignment is due at the end of the general Spatial Sciences Institute summer term, rather than the end of the course, it is ungraded. However, it is key for students to present this to ensure timely progress toward the qualifying proposal and ultimately toward completion of the dissertation itself.

Grading Breakdown

The following table summarizes the SSCI 601a course assignments and their point distribution:

Assessment	Number	Points Each	Total Points
General Assignments			
Class Participation	1	5	5
Lead Discussion of Readings	5	4	20
Model Review Article Evaluation	1	10	10
Collaborative Research Project Components			
1st Collaborative Project Presentation	1	5	5
2nd Collaborative Project Presentation	1	5	5
3rd Collaborative Project Presentation	1	5	5
Final Collaborative Project Presentation	1	10	10
Collaborative Project Written Report	1	15	15
Review Article/Learning Contract			
Draft Learning Contract	1	5	5
Revised Learning Contract	1	10	10
Review Article Preliminary Presentations	1	10	10
Review Article Written Draft	1	N/A	N/A
Total	16	-	100 points

Assignment Submission Policy

Assignments will be submitted for grading via Blackboard using the dates specified in the Course Schedule below.

Additional Policies

Students are expected to attend and participate in every class session and to complete and upload all assignments before the deadlines detailed in the Course Schedule. Late work will be assessed a penalty of 10% per day and zero grades will be assigned for work that is more than one week late.

Course Schedule: A Weekly Breakdown

	Topic	Readings and Assignments	Deliverables/Due Dates
Week 1 5/18	**Introduction:** Introduction to the course including the urban health indicators project. Discussion of potential review article topics.	World Health Organization (2016) *Global report on urban health* (All)	
Week 2 5/23	**Research Design:** Overview of principles and major types of research design in research on population, health and place. Student presentation and discussion of objectives and preliminary indicator selection for collaborative project.	Guest & Namey (2015), Ch. 1-2 (All) Guest & Namey (2015), pages 723-746 (All) Montello & Sutton (2013), Ch. 1-3 & 8 (All) Turabian et al. (2013), Ch. 1-2 & 5 (All)	First Collaborative Project Presentation-
Week 2 5/25	**Population Science:** A discussion of methods and data sources that population scientists typically deploy to examine one or more aspects of human well-being built around a presentation and class discussion with guest Dr. Ann Owens, USC Assistant Professor of Sociology and Spatial Sciences. Discussion of data and methods needed for urban health indicators.	Guest & Namey (2015), Ch. 9 (All) Guest & Namey (2015), Ch. 14 (Optional) Owens, A. 2013. Perceptions of disorder and safety amidst the transformation of assisted housing. *Cityscape* 15(3): 77-103 (All) Owens, A. 2012. Neighborhoods on the rise: A typology of neighborhoods experiencing socioeconomic ascent. *City and Community* 11: 345-369 (All)	Draft Learning Contract
Week 3 5/30	**Data Use and Collection:** A discussion of different types of data, as well as sampling and means of collecting and using data for research in population, health, and place. Identification of data for urban health indicators.	Montello & Sutton (2013), Ch. 9 (All) Guest & Namey (2015), Ch. 17 (All) Guest & Namey (2015), Ch. 12-13 (Assigned) Montello & Sutton (2013), Ch. 4-7 (Assigned)	Second Collaborative Project Presentation

	Topic	Readings and Assignments	Deliverables/Due Dates
Week 3 6/1	**Spatial Sciences Research:** A discussion of existing social and physical spatial data and spatial methods for deriving health data, and how these may be used in conjunction with health studies with guest Dr. Zaria Tatalovich, Geospatial Scientist, National Cancer Institute, Division of Cancer Control and Population Science.	SSI Core Geospatial Datasets (All) Miller, H. and Goodchild, M. 2015. Data-driven geography. *GeoJournal* 80: 449-461. (All) Guest & Namey (2015), Ch. 5 (Assigned) Guest & Namey (2015), Ch. 20 (Optional) Guest & Namey (2015), Ch. 21 (Optional) Yu M., Cronin K., Tatalovich Z., and Gibson, T. 2014. Using a composite Index of socioeconomic status to investigate health disparities while protecting the confidentiality of cancer registry data. *Cancer Causes and Control* 25: 81-92. (All) Berrigan D., Tatalovich Z., Pickle L., Ewing R., and Ballard-Barbash, R. 2014**.** Urban sprawl, obesity, and cancer mortality in the U.S. *International Journal of Health Geographics* 13: 3. (All)	
Week 4 6/6	**Health Research:** A discussion of methods and data sources that public health researchers typically employ around a guest presentation from Dr. Zanghua Chen, Post-Doctoral Researcher, Preventive Medicine at USC's Keck School of Medicine.	Guest & Namey (2015), Ch. 7 (All) Guest & Namey (2015), Ch. 18 (All) Guest & Namey (2015), Ch. 6 (Optional) Guest & Namey (2015), Ch. 8 (Optional) Gauderman, W.J. et al. 2015. Association of improved air quality with lung development in children. *New England Journal of Medicine* 372(10): 905-913. (All) Chen, Z. et al. 2016. Ambient Air Pollutants Have Adverse Effects in Insulin and Glucose Homeostasis in Mexican Americans. *Diabetes Care* 39(4): 547-554. (All)	
Week 4 6/8	**Literature Review:** A discussion of the centrality and importance of the literature review in shaping research projects and as elements within manuscripts. Discussion of initial sources and approaches for individual review articles.	Turabian et al. (2013), Ch. 3-4 (All) Boote, D. and Beile, P. 2005. Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher* 34(6): 3-15. (All) Hart, C. 1998. *Doing a literature review: releasing the social science imagination*. Thousand Oaks, CA: Sage Publications, Inc. Ch. 1-4. (Two Assigned Presentations)	Model Review Article Evaluation

	Topic	Readings and Assignments	Deliverables/Due Dates
Week 5 6/13	**Mixed Methods:** Overview of qualitative methods in sociology, public health, and geography and the application of such methods in mixed methods research.	Guest & Namey (2015), Ch. 15 & 19 (All) Putnam, R. (2000). *Bowling alone: the collapse and revival of American community*. New York, NY: Simon and Schuster. Ch. 1 & Appendix 1. (Assigned) Pulido, L., Sidawi, S. and Vos, R.O. 1996. An Archaeology of Environmental Racism in Los Angeles. *Urban Geography* 17: 419-439. (Assigned)	Third Collaborative Project Presentation
Week 5 6/15	**Community-Based Research:** A discussion of the value and ways in which scholars promote co-learning among researchers, public health professionals, and communities, and a discussion of policy and legal barriers to such research with guest Dr. Laura Ferguson, Assistant Professor USC Institute for Global Health at the Keck School of Medicine.	Guest & Namey (2015), Ch. 4 (Assigned) Balazs, C.L. and Morello-Frosch, R. 2013. The three R's: How community based participatory research strengthens the rigor, relevance, and reach of science. *Environmental Justice* 6(1): 1-11. (Assigned) Ferguson L., Tarantola D., Hoffman M., and Gruskin, S. 2013. Non-communicable diseases and human Rights: Assessing the links. *Global Public Health.* Mar 17: 1-28. (All) Tarantola, D., Ferguson L., and Gruskin, S. 2011. International health, global health and human rights." In *Handbook of global public health*, edited by R. Parker and M. Sommer, 51-61. New York, NY: Routledge. (All)	Revised Learning Contract
Week 6 6/20	**Building and Maintaining Scientific Reputation:** A discussion of the ways in which scholars can build and sustain a stellar scientific reputation in an interdisciplinary context, including writing and presentation styles from the perspective of a journal editor as shared by guest John Wilson, Professor and Director of USC's Spatial Sciences Institute. Collaborative project group work with instructor.	Turabian et al. (2013) Ch. 13-14 (All) Montello & Sutton (2013) Ch. 11 (All) Bourne, P. E. and Barbour, V. 2011. Ten simple rules for building and maintaining a scientific reputation. *PLoS Computational Biology* 7(6): e1002108 (All) Dogan, M. and Pahre, R. 1990. *Creative marginality: innovation at the intersection of the social sciences* San Francisco, CA: Westview Press. Introduction, Ch. 1,7, and 9-10. (Two Assigned Presentations)	

	Topic	Readings and Assignments	Deliverables/Due Dates
Week 6 6/22	**Research Ethics:** A discussion exploring the ethical aspects of research designs, subject recruitment, and data collection, as well as the various ways in which institutions are required to safeguard privacy, confidentiality and related outcomes. Collaborative project group work with instructor.	Guest and Namey (2015), Ch. 3 (Assigned) Montello & Sutton (2013), Ch. 14 (Assigned) **USC Health Sciences Review Board (HSIRB),** https://oprs.usc.edu/hsirb/ **USC University Park Institutional Review Board (UPIRB),** https://oprs.usc.edu/upirb/	
Final Class 6/27* *3 hours, 10 a.m.-1 p.m.	**Final Presentations:** Student presentation of the collaborative project and student presentations of work completed to date on the review articles according to the learning contracts.	Collaborative Project Presentation (All) Review Article Preliminary Presentations	Collaborative Project Written Report
End of Summer Term for SSI 8/11	**Review Article Feedback:** The review article will be read and feedback returned from the instructor and designated USC faculty.	Submit review article via email no later than 5 p.m. on 8/11/17.	Review Article

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.

Resources for Online Students

The Course Blackboard page and the GIST Community Blackboard page have many resources available for distance students enrolled in our graduate programs. In addition, all registered students can access electronic library resources through the link https://libraries.usc.edu/. Also, the USC Libraries have many important resources available for distance students through the link: https://libraries.usc.edu/faculty-students/distance-learners. This includes instructional videos, remote access to university resources, and other key contact information for distance students.