

S55-5000: Research Methods

This course overview is being provided by the lead instructor and may be used for reference as you prepare for the Research Methods proficiency exam. The exam is designed to measure your knowledge of the course domains and core competencies which are standard across sections of the course. Specific course content may vary by instructor, therefore course syllabi are not provided.

COURSE OVERVIEW:

Research Methods focuses on concepts and skills underlying a scientific and systematic approach to public health practice; emphasizes evaluation of practice at a variety of levels (individual, group, organization, community); stresses the understanding the application of research to practice and developing the abilities to critically evaluate and apply research findings. The lead instructor is Amy Eyler, PhD, Associate Professor.

COURSE DOMAIN AND BOUNDARIES:

This course has three main goals:

1. Students will understand the basics of public health research. Core research concepts are presented including specification, design, data collection, measurement, survey design, bias, qualitative and quantitative research, clinical research (multi-subject and single subject), use of computers in data retrieval, data management and data analysis, research implementation, interpretation, and dissemination.
2. Students will understand how research is used in evidence based practice. This includes the ability to frame empirically answerable questions, locate data relevant to those questions, critically evaluate such data, and apply it to practice situations.
3. Students will develop a deeper understanding of the research process through designing and executing a research project. *“Tell me, I’ll forget. Show me, I’ll remember. Involve me, I’ll understand” – Chinese Proverb*

As core components of the course, values are explored and ethics are taught as they apply to research, and the intertwined nature of diversity, health, social, and economic justice, and research is presented and explored.

COURSE PEDAGOGICAL ELEMENTS:

Pedagogical elements common to all sections of this course include:

1. This course includes in-class demonstrations of computerized information retrieval systems. These are shown at general (e.g. Wikipedia and/or Google), scientific (e.g. Google Scholar, PsychInfo), and specialty (e.g. Cochrane Collaboration, NGO) levels. Students will complete assignments demonstrating mastery of the above kinds of search engines.
2. Instructors will demonstrate critical evaluation of existing research which is relevant to public health practice. Students will complete assignments demonstrating their ability to criticize existing research at a basic level.
3. Students will complete a group research project demonstrating their ability to formulate a question, choose and execute a design, implement the research, analyze and interpret resultant data, and create a product in a format fit for dissemination (e.g. PowerPoint, poster, paper, agency presentation, etc.)

4. Instructors will demonstrate/model the research process, showing how specific field-generated questions can be (1) formulated and operationalized, (2) how best available evidence can be located, and (3) critically evaluated, and applied to practice.
5. Instructors will provide students with examples of critical ethical failures in the history public health research. Students will demonstrate compliance with ethical standards in their assignments.

CORE COMPETENCIES:

Public Health Competencies Addressed in Research Methods
• Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health.
• Explain the critical importance of evidence in advancing public health knowledge.
• Explain the social, political, economic determinants of health and how they contribute to population health and health inequities.
• Select quantitative and qualitative data collection methods appropriate for a given public health context.
• Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.
• Interpret results of data analysis for public health research, policy or practice.
• Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.
• Explain basic principles and tools of budget and resource management.
• Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.
• Select communication strategies for different audiences and sectors.
• Communicate audience-appropriate public health content, both in writing and through oral presentation.
• Describe the importance of cultural competence in communicating public health content.

READINGS:

Please note, these readings may vary across sections; this is a sample from the lead instructor’s syllabus.

Resources

Orcher, Lawrence T. *Conducting research: Social and behavioral science methods*. Routledge, 2016.
 Levy, Patricia. *Research Design*. Guilford Press, 2017.
 Corbin, Juliet, Anselm Strauss, and Anselm L. Strauss. *Basics of qualitative research*. Sage, 2014.
 Burch, Patricia and Heinrich, Carolyn J. *Mixed methods for policy research and program evaluation*. Sage, 2016.

Supplemental Resources (on reserve at the Brown School Library)

Bernard, H.R. (2006). *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. (4th Ed). Oxford, United Kingdom: AltaMira Press.
 Booth, W.C., Colomb, G.G., & Williams, J.M. (2008). *The Craft of Research*. (3rd Ed). Chicago, IL: University of Chicago Press.
 Galvan J. (2006). *Writing literature reviews: a guide for students of the social and behavioral sciences*. (3rd ed.). Glendale, CA: Pyczak Publishing.