Survey Design and Data Collection

CLASS SESSIONS
Monday, June 22, 2020 – Friday, June 26, 2020
8:30am – 12:30pm
Location: TBD
Hammer Health Sciences Library (HSC) is located at 701 W. 168th St. New York, NY 10032
Directions can be found here: http://www.cuepissummer.org/contactpage

INSTRUCTOR
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COURSE DESCRIPTION
Competence in survey design and measurement are essential for conducting public health research and critically evaluating published literature. This course explores basic concepts of conducting standardized, scientifically-based observational research, from initial survey design to field implementation. Students will gain exposure to the essential skills for designing, conducting, and managing successful primary survey projects. Students will have an opportunity to apply concepts and techniques from class directly to the development of their own observational study protocol sketch.

PREREQUISITES
None.

COURSE LEARNING OBJECTIVES
By the end of the course, students will be able to:
- Identify the leading study designs in observational epidemiology and have exposure to the relative strengths and weaknesses of each design
- Critically assess modern data collection methods employed in medical and primary public health research
- Develop an outline for a rigorous research protocol to explore an identified gap in public health research
- Distinguish between types and draft survey item questions
- Develop quantitative survey instrument items for a primary population-based research question
- Understand central ethical, financial, logistical, and managerial considerations for implementing a primary research study and some strategies for conducting a successful study
**RECOMMENDED COURSE READING LIST**


**COURSE STRUCTURE**

Class meets from Monday – Friday 1:30 PM - 5:30 PM for a week (20 hours total). Each session will focus on articulated learning objectives that focus both on the survey design and implementation issues that are related to each component of survey design. Students are encouraged to draw on their professional experience to bring salient implementation issues to the class.

**COURSE SCHEDULE**

<table>
<thead>
<tr>
<th>Day 1 Introduction – Survey Design &amp; Data Collection</th>
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<tr>
<td>Review / introduction to basic measurement theory, study design, survey design, and motivation for course. Review / introduction to basic measurement scale considerations.</td>
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**Learning Objectives:**

- Assess strengths and weaknesses of common modern data collection methods
- Critically assess modern data collection methods employed in medical and primary public health research

**Recommended readings:**


In-class assignment to be reviewed in next class: Submit research question for ‘sample’ study protocol development.
### Day 2 Survey Design - Knowledge

Survey Design – Introduce, develop, and critique knowledge items and data extraction format.  
Data Collection – Introduction to data collection methods in general and specific focus on issues related to knowledge items and data extraction.

**Learning Objectives:**  
- Develop an outline for a rigorous research protocol to explore an identified gap in public health research  
- Distinguish between types and draft survey item questions  
- Develop quantitative survey instrument items for a primary population-based research question  

**Recommended readings:**  

In-class assignment to be reviewed in next class: 5 knowledge or data extraction items

### Day 3 Survey Design - Attitudes

Survey Design – Introduce, develop, and critique attitude items.  
Data Collection – Introduction to data collection methods in general and specific focus on issues related to attitude items.

**Learning Objectives:**  
- Distinguish between types and draft survey item questions  
- Develop quantitative survey instrument items for a primary population-based research question  

**Recommended readings:**  

In-class assignment to be reviewed in next class: 5 attitudinal items
### Day 4 Survey Design - Behavior

Survey Design – Introduce, develop, and critique behavior items.
Data Collection – Introduction to data collection methods in general and specific focus on issues related to behavior items.

**Learning Objectives:**
- Distinguish between types and draft survey item questions
- Develop quantitative survey instrument items for a primary population-based research question

**Recommended readings and other learning resources:**

- Video of research on a shoe-string from CPC [https://www.youtube.com/watch?v=gntSSklNnLo](https://www.youtube.com/watch?v=gntSSklNnLo)

*In-class assignment to be reviewed in next class: 5 behavior items*

### Day 5 Field Implementation

Survey Design – Review each type of item question, introduce commonly used scales and identify strengths and weaknesses of each.
Data Collection – Present main components of study protocols and key issues to field data collection including management, timing, ethics, and budget considerations.

**Learning Objectives:**
- Understand central ethical, financial, logistical, and managerial considerations for implementing a primary research study.
- Identify strategies for conducting a successful primary research study

**Recommended readings:**