The Heller School for Social Policy and Management, Brandeis University
International Program on Health Policy and Management, Master of Science

HS 402f. Research Methods
Spring 2017 (Module 2)
Tuesday, 2:00 – 4:50 pm

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University Notices
1. If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately.

2. You are expected to be honest in all of your academic work. The University policy on academic honesty is distributed annually as section 5 of the Rights and Responsibilities Handbook. Instances of alleged dishonesty are subject to possible judicial action. Potential sanctions include failure in the course and suspension from the University. If you have any questions about my expectations, please ask.

Academic integrity is central to the mission of educational excellence at Brandeis University. Each student is expected to turn in work completed independently, except when assignments specifically authorize collaborative effort. It is not acceptable to use the words or ideas of another person – be it a world-class philosopher or your roommate – without proper acknowledgement of that source. This means that you must use footnotes and quotation marks to indicate the source of any phrases, sentences, paragraphs or ideas found in published volumes, on the internet, or created by another student. If you are in doubt about the instructions for any assignment in this course, you must ask for clarification.

Course Requirements
1. Attendance at all sessions; prompt arrival.
2. Preparation of all readings.
3. Participation in class discussions and any small group work.
4. Timely submission/presentation of assignments.
5. Completion of a research proposal and a final paper and in class participation.
6. Participation in class discussion.
7. Contribution to requirements and objectives of group work.
8. Being helpful and considerate to other students.
This is a module course of the MS/GHPM program. This course is also open to students in other programs who are interested in the topic.

*This syllabus is subject to change at any time at the discretion of the instructors. When in doubt, please ask the instructors.*

**Course Description**
The purpose of this course is to prepare students (1) to understand the fundamentals of the rigorous conduct of health policy research methods and (2) to be sophisticated consumers of empirical health policy research. A variety of class formats will be used throughout the semester including lectures, discussions, and seminars, depending upon the topic and readings. Every student is expected to come to each class prepared to raise questions from the readings, respond to questions raised by other students and the instructor, discuss issues, and point out implications of the readings for policy and planning research.

**Course Reading**
The primary text for this course is Shadish, W.R., Cook, T.D., & Campbell, D.T. (2002). Experimental and quasi-experimental designs. Boston: Houghton-Mifflin Co. Additional papers and reports are indicated for each unit of the class. These will be available online or on Latte.

Other important readings are specified under the various lecture topics. Reading extensively from the professional literature on health system performance is very important for this course. Students are expected to do these readings, and to be able to summarize what they have read when called upon to do so in class.

**Student Evaluation**

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Research Proposal</td>
<td>35%</td>
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<tr>
<td>Final paper</td>
<td>45%</td>
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<tr>
<td>Class participation</td>
<td>20%</td>
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## Course Outline Sessions & Assignments

<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Topic</th>
<th>Instructor</th>
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| March 14   | 1       | Topic 1 Course overview  
Topic 2 Presentation of research methods, discussion of motivation for research, cause and effect, hypothesis, internal and external validity, etc | Bowser     |
| March 21   | 2       | Review of Internal and External Validity  
Sample, sample size | Bowser     |
| April 28   | 3       | Randomized Controlled Trials (RCT) | Bowser     |
| April 4    | 4       | Observational Studies (case control, cohort, pre-post policy change)  
Assignment #1 due | Bowser     |
| April 11   | 5       | Quasi Experimental Designs and Difference-in-Differences Designs | Razavi     |
| April 18   | 6       | Topic 1: Alternative Quasi Experimental Designs: Interrupted Time Series and Regression Discontinuity Designs  
Topic 2: Matching: Background characteristics based matching and Propensity Score Matching | Razavi     |
| May 25*    | 7       | Topic 1: Generalized Inference: Multistudy programs, Systematic Reviews and Meta Analysis  
Topic 2: Mixed-Method Quantitative-Qualitative Evaluation Designs  
Topic 3: An overview of alternative designs for dynamic and complex systems: static and dynamic microsimulations, complex system modeling, Case Study: PRISM | Razavi     |

*(Date may change based on spring registrar schedule)*

**Writing Assignments**
Students will complete two writing assignments and post them on LATTE. Specific details on each assignment will be detailed during class.
Class Schedule and Topics  
(Preliminary and subject to change)

14 March 2017
Class 1: Course overview (Topic 1): Presentation of research methods, discussion of motivation for research, cause and effect, hypotheses testing  
(Topic 2): Internal and External Validity  

Shadish, Cook & Campbell, chapters 1 (pages 1-12), 2 & 3  

21 March 2017
Class 2  
Topic 1: Review Internal and External Validity  
Topic 2: Sample, Sample Size  

Shadish, Cook & Campbell, chapters 8-10

28 March 2017
Class 3: Randomized Control Trials  

Shadish, Cook & Campbell, chapters 4 & 5 (sections of these chapters)  

4 April 2017
Class 4: Observational Studies  

Assignment 1– Developing a research protocol with a RCT design  
Shadish, Cook & Campbell, chapter 6  
11 April 2017
Class 5: Quasi Experimental Designs and Difference-in-Differences Designs

Shadish, Cook & Campbell, chapter 5

Moaven Razavi (2011). Impact of Structural Adjustment Programs on Healthcare Financing in Iran. Chapter 3 and Chapter 4


18 April 2017
Class 6:
Assignment 2–Adapting your research question to a new study design

Topic I: Alternative Quasi Experimental Designs: Interrupted Time Series and Regression Discontinuity Designs

Topic II: Matching: Background characteristics based matching and Propensity Score Matching

Shadish, Cook & Campbell, chapters 6 and 7


25 April 2017 (this last date is subject to change)
Class 7:
Topic I: Generalized Inference: Multistudy programs, Systematic Reviews and Meta Analysis
Topic II: Mixed-Method Quantitative-Qualitative Evaluation Designs

Shadish, Cook & Campbell, chapter 13


Additional reference to be added