Course objectives and overview:

By the end of this course you will have gained a working knowledge of the rationale for and use of basic research methods in social scientific research. I hope that the course contains good advice and guidance, and provides you with a basis of knowledge and experience that will help get your career as a contributor to a body of knowledge off the ground successfully and increase your efficiency and effectiveness in later work.

This class is designed to introduce you to the wide variety of empirical social scientific research designs, rationales, methods, their strengths, and their weaknesses. It places special emphasis upon asking research questions involving causation and the acquisition of experience in designing research. The following topics will be covered.

An Introduction to Social Research
- Approaches to Knowledge
- Basic Assumptions of Science
- The Structure of Bodies of Scientific Knowledge
- Causation and Correlation

Fundamentals of Research
- Research Design (Purposes of Research, Unit of Analysis, Time Dimension, Bivariate and Multivariate Relationships)
- Conceptualizing Variables, Indicators, and Surrogates
- Reliability and Validity

Modes of Observation and Original Data Collection
- Experiments and Quasi-Experiments
- Observational Field Methods
- Sampling and Surveys
- Interviews

Public Data and Information Sources
- Demographic
- Housing
- Health
• Education
• Crime
• National Economy
• Wealth, Income, and Poverty
• Labor and Business Statistics
• Government
• Public Opinion Polling

The Ethics and Politics of Social Research
• Use of Humans and Animals in Research
• Anonymity and Confidentiality
• Lying to Subjects
• Fraud in Analysis and Reporting
• Use and Misuse of Social Research

There are, of course, many other possibly no less important topics that might be considered in a doctoral level research methods course. Examples include phenomenological methods, hermeneutic methods, psychoanalytic methods, and symbolic interactive methods. However, when a lot of topics are covered in the period of a single course, each must be treated in a relatively superficial way. Thus, given the tremendous importance of science in contemporary society, the focus of the course will be limited largely to a more in depth and detailed examination and critique of the dominant conventions within empirical social scientific research.

In order to help you fulfill the course objectives, you will engage in readings, class activities, and assignments.

**Required Readings:**


Class activities and requirements:

The class is structured as a graduate seminar. Every week students will be called upon to submit 3-4 questions about the reading. These questions are to be submitted the day before the class meeting for purposes of classroom discussion. Please send them to: bowen@urban.csuohio.edu. A considerable proportion of each classroom meeting will be devoted to classroom discussion about these questions.

Over the course of the semester, each of you will be required to develop a causally-probative research design proposal on a subject area of your own choice. The purpose is to encourage critical thinking in the form of deep, long logical chains of reasoning about descriptive causal claims, and to do so specifically by requiring you, the student, to actively grapple with the challenges of developing an application that involves the range of considerations related to stipulating and validating a causal relationship. *The design must stipulate a validatable inference, preferably about a relationship between a cause and its effect.* The stipulated relationship must be internally validatable, and the design proposal must stipulate a plausible means of validation. Furthermore, the proposal must include a theoretical justification for the stipulated relationship, articulated in terms of a recognizable body of knowledge (as per the relevant scholarly literature). Why, in terms of this body of knowledge is this particular relationship is of (practical) significance? While a plausible proposal complete with budget and time frame is required as a part of the proposal, actual follow-through is not.

A validatable inference is one that can potentially be validated. Thus, four prerequisites must inhere within the situation in which the relationship is to be tested. First, the situation must be observable and measurable. Otherwise, if no observations are feasible and no measurements can be taken, empirical testing is not feasible. This excludes for instance causal relationships that require measuring “the public good.” It is simply not clearly enough defined at a conceptual level to permit of measurement. Second, the situation must exhibit constancy of pattern through time. In other words, the evaluation of a causal relationship occurs on the basis of a model representing a set of stipulated relationships between variables. These sets of relationships are referred to as patterns or structures. Constancy of pattern through time is required to ensure that the model is predictive for the same or very similar conditions as those used in the validation tests. Third, the situation must exhibit constancy of pattern across a specified range of variation not specified in the model. If the model is to be predictive, it must remain valid for a specified range of conditions different from those used in the validation tests. This prerequisite ensures that the model remains valid for these conditions. Fourth, the situation must permit the collection of ample data. This fourth prerequisite, as with the first, is necessary to ensure that the relationship can be tested. The issue here is not whether measurements can, in principle, be taken (because, for instance of lack of a clear conceptual definition) but whether or not the data actually have been (or can be) gathered. For instance, there is nothing in principle that prohibits measuring the IQs of all of the parents in Cleveland with children in the school system. The definitions of IQ are clear, and the tests are available. But there are nevertheless quite a few practical reasons why the data are not available and will not be so in the near future. Bear in mind
that these four prerequisites inhere not in the model, but in the situation it represents. Only if a situation is characterized by these four prerequisites can a valid model of be constructed in principle. If such a model is constructed, and if it survives successively more varied and exacting predictive tests, it will accrue greater and greater validity.

Scientific progress is in some respects a fundamentally collective activity and your design proposal will be developed over the course of the semester by a series of in-class interactions between you and your classmates. The second week of class you will present your initial thoughts. A couple weeks after that you will present your literature review strategy, including specification of research journal articles suggesting the relationship you plan to work with and specification of the fuller range of relevant research journals. A couple weeks after that, you will present the outlines of your design. After each presentation, your classmates will comment upon your presentation. After that, each week there will be successively more in-depth attention paid by the class to the development of your design proposal. A part of each classroom meeting will be devoted to classroom discussion of your individual research design proposals. In the end the peer review process conducted by the collective interactions of the class will make very clear which of the design proposals is apt to succeed at making a contribution to a body of knowledge.

There will also upon occasion be lectures given, papers examined, and classroom exercises done to clarify and crystallize some of the points made about research methods over the course of the semester.

**Grading:**

Indications of your progress in class will be determined by the questions you submit before class, the interactions you exhibit in class in helping to answer and clarify the questions asked by your classmates, and the degree to which the statements you make during such interactions reflect a clear understanding and knowledge of research design. If your interactions are “on target” then I will let you know. If they are persistently off-base, the chances are high that your classmates will point this out to you in one way or another; and if they do not do so then I will find some way to do so gently but firmly. If your interactions are not only persistently but also systematically off-base, then it will be time to discuss what concepts you hold that you might want to reconsider. If you dissent from the prevailing view in the class then that is fine; you will be asked to specify and then justify your dissent, and if you do so successfully then it will count in your favor. You need not agree with everything said in the class: you need only to be able to provide a clearly articulated chain of evidential reasoning for your disagreement. But most of all, you must participate actively in the discussion. It is to be expected that different people will have different levels of knowledge and understanding about research methods, and that there will be differences in viewpoint. Differences in viewpoint are to be encouraged, so long as they are well-reasoned and defended. Your class participation grade will not depend upon the level of knowledge you have to begin with. Some of you will know a lot and some will know only a little, and that is fine. Nor will it depend
upon whether the thoughts and views you express conform to those that prevail in the class. Rather it will depend firstly upon the act of class participation, secondly upon whether you demonstrate the willingness to reason through the class material and the views presented by your classmates, and to identify and correct errors in your own thinking. Those students who convey the following attitude will be those who will earn an “A” in class participation: “I may be wrong, and you may be right, and by an act of reasoning together perhaps we can come closer to the truth.” Besides demonstrating this attitude in class discussions about the questions submitted each week, you will also be able to demonstrate it when responding to your classmates after having presented your research ideas. Otherwise, if you do not participate in classroom discussion then I will assume that the reason is that you are not prepared to discuss the course materials, and I will grade accordingly.

Half of the grade in the course will come from your research design proposal. An “A” paper will be one which, if followed through upon, would be suitable for submission to a scholarly journal. The proposal should be one that would be plausible to follow through with within the proposed time period and budget constraints, but you need not actually follow through. An “A” will signify that by virtue of the design, method, and documentation the research proposal can be recognized as having substantial potential for scientific merit. A “B” paper will be one that does not meet this standard but that nevertheless demonstrates that the student has a clear grasp of what a causal relationship is all about (e.g. what sorts of considerations must be taken into account to stipulate and test such a relationship, and what threats to validity inhere within the structure of the proposed test). If for instance for whatever reason the student does not justify a stipulated relationship in terms of a body of scholarly literature, or if the design is simply not logically appropriate to test the stipulated relationship, or if there are no predictions made from the relationship, or if any of a host of other major flaws related especially to validation are reflected in the paper, any of which would keep it out of a scholarly journal, then that paper will earn a grade of “B”. In other words, a “B” will signify that the data, design, and methods are likely to lead to approximately accurate research findings but have enough notable conceptual or other flaws to conclude only that the research may have some scientific merit. A “C” paper will be one which not only is not suitable for submission to a scholarly journal, but does not contain evidence of scientific merit. A “C” will indicate that the proposed research was not designed well enough to know with confidence whether it contains the potential for any scientifically meritorious conclusions, and so should, at best, be considered purely conjectural. If a paper fails to indicate that the student has a reasonably clear grasp of what a causal relationship is all about or else indicates that the student clearly does not know how to rationalize or use research methods to validate such a relationship, then that paper will receive a “C”.

Finally, 20% of your grade will be determined by a final (take home) exam designed to test whether and to what degree you possess mastery of the some of the basic technical concepts introduced and examined in the course. For instance, I might ask you to describe and distinguish between face validity, criterion validity, and construct validity. I might ask you differentiate between experiments, quasi-experiments, and pre-experiments in terms of manipulation, random assignment and control. I might ask you
provide the rational for using a comparison group, or a pretest, and the threats to validity that occur when either is not used. Or I might ask you to distinguish between nominal, ordinal, interval and ratio scale data and to delineate the psychological prerequisites of each. In any case the focus will be upon the core concepts in research design, and the purpose of the exam will be to assess your knowledge and mastery of those core concepts. The “A” student will be the one who demonstrates a solid mastery.

For feedback on your performance, please feel free at any point in the semester make an appointment for an office visit.

Seminar discussion: 30%
Final exam: 20%
Research design proposal: 50%

**Tentative Schedule:**

**August 31**  What Modern Rational Empiricists Know and How they Know It
Homework: SSC Chapter 1, Patten Parts A thru D

**September 7**  Experiments and Generalized Causal Inference
Homework: SCC Chapters 2 and 3

**September 14**  Validity
Homework: SSC Chapters 4, 5, and 6

**September 21**  Quasi-Experimental Designs
Homework: SSC Chapter 7, Patten Parts E thru J

**September 28**  Regression Discontinuity Designs
Homework: SSC Chapter 8

**October 5**  Randomized Experiments: Rationale, Designs, and Conditions Conducive to Doing Them
Homework: SSC Chapters 9 and 10

**October 12**  Practical Problems in Social Scientific Research
Homework: SCC Chapter 11
October 19  Generalized Causal Inference: A Grounded Theory
   Homework: SSC Chapters 12 and 13

October 26  Causal Inference: Methods for Single and Multiple Studies
   Homework: SSC Chapter 14

November 2  A Critical Assessment of Our Assumptions
   Homework: Rea and Parker Chapters 1 – 5, Maier Chapters 1 - 4

November 9  Developing and Administering Questionnaires
   Homework: Rea and Parker Chapters 6 - 8, Maier Chapters 5 - 8

November 16  no class

November 30  Ensuring Scientific Accuracy
   Homework: Rea and Parker Chapters 9 - 12, Maier Chapters 9 - 13

December 7  Presenting and Analyzing Survey Results

December 14  Final Exam