

**SOCI 5320-006**  
**Seminar in Quantitative Methods**  
**Fall 2016**  
**Course Syllabus**

**Time:** 6:00 to 8:50 pm Tuesday  
**Place:** Old Main 110/Prospect Hall 300  
**Office Hours:** 3:30 to 5:00 pm Tuesday  
(or, by appointment: schedule via email/phone)

**Instructor:** Dr. Jayajit Chakraborty  
**Office:** Old Main 318  
**Email:** jchakraborty@utep.edu  
**Phone:** 915-747-6577

**Course Description from *Guide to the Sociology MA Program*:**

Focus on understanding, interpreting, and critically evaluating information obtained from quantitative methods and the sampling procedures these methods employ, including a general overview of relevant social science research methods.

This course provides a comprehensive and critical introduction to principles of systematic inquiry, research design, and quantitative methodological techniques used in social scientific analysis within academic and ‘real-world’ professional contexts. It is required of all graduate students in the Sociology MA program. Specifically, this course focuses on the rationale behind planning and conducting quantitative research projects in the social sciences, as well as conventional approaches for systematically collecting and analyzing data to arrive at answers to relevant social scientific questions. Students will learn how to understand, interpret, and critically evaluate information obtained from the application of quantitative methods, and be introduced to a variety of specific quantitative methodological approaches. Students will also take the important step from being critical “consumers” of information to begin learning how to be “producers” of information through a final project that require students to identify research problems of interest to them and design their own methods for studying their chosen research topic.

The course should provide students with the introductory skills to both evaluate and conduct research in sociology and other social sciences. The organization of the course generally follows the process of carrying out social scientific research, from the formulation of a problem or question, to data collection to analysis and interpretation. We will begin by discussing the scientific foundations of social research, followed by introducing the basic language of social research and outlining the overall research process (weeks 1-2). We will then examine the two key considerations in planning or designing a study: devising operations to measure the phenomenon of research interest (week 3) and selecting a representative set of cases for observation (week 4). The next phase of the course focuses on three basic approaches to quantitative social research: experiments, surveys, and use of

available/secondary data (weeks 5-7). We will examine the distinctive process of executing a study based on each of these approaches, strengths and weaknesses of each approach, as well as the technical aspects of experiments and survey design. We will also consider how research methods can be applied to the evaluation of social programs and interventions (week 7). This phase will be followed by a brief overview of data processing and elementary data analysis, and an introduction to multivariate statistical analysis (week 8). The final phase of the course will focus on the writing of research reports and research proposals (weeks 9-10), based on combining specific information and subject matter covered in previous weeks. We will specifically examine how to recognize research problems and formulate research questions/hypotheses, review literature that informs the research problem and questions, develop an appropriate study design, select data collection and analytic strategies, consider ethical issues, and draw conclusions about research problems.

### **Course Objectives**

- To understand various quantitative research concepts and approaches, and be able to apply them in conducting research and social scientific analyses.
- To identify and evaluate diverse sources of social scientific data and be aware of the methods for collecting such information.
- To understand and critically evaluate quantitative research presented in the popular press and academic journals - i.e., be a good consumer of research.
- To plan your own research - specifically, to identify research topics that are suitable for examination with quantitative methods, translate such topics into meaningful research questions, and design a study to answer them.
- To develop and refine academic/professional writing skills by preparing a complete research proposal.

### **Course Requirements**

The course will be run as an interactive seminar at the graduate level. In other words, it is structured around a set of readings from academic books and journals that will form the basis for class discussions and assignments. This course is designed based on the premise that all students will take active roles in their own learning, and interact with each other to form a collaborative and supportive learning environment. My role as instructor is to serve as an effective guide in the learning process.

***Class attendance and participation:*** Students are expected to both attend and actively participate in the class. This means that you are required to complete all reading assignments

prior to class and be prepared to engage in thoughtful discussion of the assigned readings in class. *The course does require an intensive and substantial level of engagement with the reading material.* All students are expected to participate in each class in a manner that demonstrates adequate reflection and understanding of the subject matter, respect for your colleagues in the class, and a willingness to learn and grow. I expect that each student will speak a minimum of several times during each class session. Everyone should feel comfortable sharing their thoughts freely. Students who read material that are not on the syllabus but are relevant to the discussion should feel free to contribute this knowledge to the discussion; the class as a whole will benefit from the specialized knowledge of all participants. Missing a graduate seminar is not acceptable. Attendance is required at every class session, as a single day in the seminar equals an entire week of the class.

***Weekly assignments:*** Students will be required to complete and submit a written homework exercise almost every week. Each assignment will be based on the topics and concepts covered in the assigned readings associated with that particular week. These documents must be prepared in MS Word and uploaded through the 'Assignments' link on the Blackboard course website. Due dates and times for completing assignments will be announced when they are distributed. *These dates and times will be adhered to rigidly!!*

***Leading class discussion:*** Each student is expected to team up with other students to lead class discussion, at least twice during the semester. In these presentations, they are required to: (a) summarize, synthesize, and critically evaluate the assigned readings; and (b) outline key issues and questions that can be used to generate class discussion. The use of class handouts (paper or hard copy version) is required. Students who lead class discussion must email the handout for the class meeting to the instructor at least 3 hours before class begins, to allow sufficient time for printing/photocopying. Students will be graded on: 1) submitting their handout document on time; 2) preparing an adequate number of meaningful questions that encompass all the assigned readings; 3) the quality of their questions (in terms of stimulating thinking, accuracy, and depth); and 4) their leadership during the discussion.

***Research proposal:*** The final course requirement is the preparation of an original research proposal that relies on the application of quantitative methods. You are expected to work individually on a project of your own choosing. Specifically, you are required to develop a research proposal that addresses a particular problem and seeks to answer a research question or a set of research questions. Your proposal will include the following components: an explanation of the research problem, a series of research questions and/or hypotheses, a brief review of the literature, and a thorough description of the methodology. *You will not collect or analyze data for this project.* Additional guidelines and information on the proposal will be provided in class and posted on the Blackboard course website. Your research topic should be chosen in consultation with the instructor. You are encouraged to use this proposal

to develop your own thesis research, a conference paper, or a journal article, but this is not a requirement. Completion of the final research proposal will proceed in three steps:

1. A two-page proposal outline must be submitted approximately a month (date to be announced in class) before the final proposal due date, to enable me to provide guidance and suggestions. This proposal outline should briefly describe your research topic and question(s), key variables, the data to be collected and used, the proposed method(s) you want to use, and how you plan to analyze the data. You are strongly encouraged to meet with me earlier in the semester to discuss your research topic/problem.
2. Each student will make a formal presentation of her/his research proposal to the class on Tuesday, November 22. The ability to present research is something that is expected of students who receive graduate degrees. You will complete an approximately 10-minute presentation of your research proposal, to be followed by about 5 minutes of questions and answers. All students will be required to provide constructive feedback on the other presentations. Questions, comments, and suggestions received during the presentation should be addressed and incorporated in the written research proposal.
3. The final research proposal will be due on Tuesday, November 29 (unless the deadline is changed later). The text should be double-spaced, 12-point font, with 1 inch margins, and at least 3,000 words in length (but no more than 4,500). It also needs a reference list (in addition to the 3,000 or more words of text) and in-text citations (using APA style). You are expected to use peer-reviewed journal articles and scholarly books as your sources.

All formal written work for this class should adhere to the APA style as described in the *Publication Manual of the American Psychological Association* (6<sup>th</sup> edition). Information on the APA style has been summarized in a PDF document (*APA Guide*) that can be found under 'Course Documents' on the Blackboard course website.

### **Course Evaluation and Grading**

The final course grade\* will be computed on the basis of the following components/weights:

- Attendance/participation in weekly discussions: 10%;
- Weekly assignments: 30%
- Leading class discussion/presenting assigned readings: 25%
- Research proposal: 35%; comprising:
  - Outline: 3%
  - Presentation: 10%
  - Written proposal: 22%

\*A= 90%-100% / B= 80%-89.9% / C= 70%-79.9% / D= 60%-69.9% / F= 59.9% and lower

## Course Text

The textbook for this course is: Singleton, R. A. and Straits, B. C. (2010). *Approaches to Social Research* (5<sup>th</sup> edition); New York: Oxford University Press. All students are required to purchase this book. Other books from which weekly readings will be assigned and posted on the Blackboard course website (as PDF documents) include:

- Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices*. Tampa, Florida: University of South Florida Scholar Commons.
- Creswell, J. W. (2013). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4<sup>th</sup> edition); Thousand Oaks, CA: Sage.
- Kumar, R. (2011). *Research Methodology: A Step-by-step Guide for Beginners* (3rd edition); Los Angeles: Sage Publications.

In addition to chapters from the texts listed above, other book chapters and journal articles will be made available for download on the Blackboard course website. A complete reading list for each week will also be posted on this course website.

## Course Outline

23-Aug		<i>No class: Instructor at 33<sup>rd</sup> International Geographical Congress</i>
30-Aug	Week 1	Course introduction (Chapter 1)
6-Sep	Week 2	Foundational concepts and Research design basics (Chapter 4)
13-Sep	Week 3	Measurement (Chapter 5)
20-Sep		<i>No class: Instructor at 2016 Race, Ethnicity, and Place Conference</i>
27-Sep	Week 4	Sampling (Chapter 6)
4-Oct	Week 5	Experiments and experimental designs (Chapters 7 & 8)
11-Oct	Week 6	Survey research and instrumentation (Chapters 9 & 10)
18-Oct	Week 7	Secondary data and Evaluation research (Chapters 12 & 14)
25-Oct	Week 8	Data processing and statistical analysis (Chapters 15 & 16)
1-Nov	Week 9	Writing a research report and proposal (Chapter 17)
8-Nov	Week 10	Designing the quantitative research proposal (TBD)
15-Nov		<i>No class: Proposal preparation</i>
22-Nov	Week 11	Student presentations of research proposals
29-Nov		<i>No class: Research proposal due</i>

### Note:

- Students will lead class discussion of assigned readings during weeks 2 to 10.
- Chapter numbers in parentheses refer to chapters assigned from the textbook.

## **Supplementary Course Information**

### *Class Environment*

It is important to recognize that the classroom is an environment that requires respect for all participants. Therefore, students are expected to conduct themselves in a considerate manner. All participants in the class must respect the classroom environment by being on time, turning off cellphones, earphones, and headphones, avoiding extraneous talking, refraining from reading non-class material, and by not eating during class time.

### *Academic Dishonesty*

Academic dishonesty is prohibited. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person as one's own. Collusion involves collaborating with another person to commit any academically dishonest act. It is expected that UTEP students will understand and subscribe to the ideal of academic integrity and that they will be willing to bear individual responsibility for their work. Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action, as per UT Board of Regents' Rules and Regulations and UTEP's Handbook of Operating Procedures. Students may be suspended or expelled from UTEP for such actions. Refer to <http://sa.utep.edu/osccr/student-conduct/> for more information.

### *Late and Missing Work*

Assignments will be allowed to be turned in late only in the event of a documented medical or family emergency. If you do encounter an emergency, you must notify the instructor on or before the due date. Documentation could include a note from a physician, a hospital admittance slip, or correspondence from an academic advisor or the Dean of Students. Foreseeable excused absences (such as participation in university-sanctioned events) also require documentation as well as notifying the instructor at least one week in advance. In the case of foreseeable absences, you must turn work in early rather than late. In each of these situations it is the student's responsibility to communicate with the instructor.

### *Incomplete Grades*

Incomplete grades (I) will not be given in the course except under exceptional circumstances, based on written documentation, and at the discretion of the instructor.

### *Help with Writing*

The University Writing Center (UWC) (Library Building, Room 227 [adjacent to the Collaborative Learning Center], tel: 747-5112) provides walk-in assistance with writing to all UTEP students at no cost (including walk-in assistance and on-line assistance with writing and citations). Please check their website – <http://academics.utep.edu/writingcenter> – for their Fall 2016 schedule and more information.

### *Special Facilities*

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, must inform the instructor at the start of the semester. Adaptations of methods, materials, or testing may be made as required for equitable participation.

### *Religious Preference Absence*

Students who anticipate being absent from class due to the observation of a major religious activity must provide written notice of the dates to the instructor by the second week of the semester.

### *Audio/Video Recording*

It is not permitted to record (via audio or visual media) class lectures or discussions without the expressed written consent of the instructor.