***SBS 2000 Interdisciplinary Research Methods***

***For the Behavioral and Social Sciences***

***New York City College of Technology, CUNY***

***E780* SBS 2000**

## 

## Prof. Judith Sedaitis Room: Namm N-923

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Office hours: Mon, Wed. 5-5:45pm, or by app’t. **M, T, W, Th. 2:30-5 pm**

**Course description:**

How do you know that what you’re learning is “true”? How do scholars decide? This course provides an understanding of the concept of evidence in the research methodologies of the social and behavioral sciences. Insights into the process of gathering evidence from a wide variety of disciplines, including history, psychology, economics, archival and cultural studies will be presented through guest lectures. Students learn through hands research projects beginning with the fundamentals of research design, through data collection, analysis, interpretation, and the final reporting of results. Both quantitative and qualitative designs are examined using software to aid in inquiry and analysis.

**Interdisciplinary Course Learning Outcomes and Assessment Methods**

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| **LEARNING OUTCOMES** | **ASSESSMENT METHODS** |
| 1. Purposefully connect and integrate across-discipline knowledge and skills to solve problems | Students submit two papers based on their own mini-research projects on topics and problems drawn from across the spectrum of social science disciplines. |
| 2. Comprehend factors inherent in complex problems | Students submit two papers based on their own mini-research projects on topics and problems drawn from across the spectrum of social science disciplines. |
| 3. Apply integrative thinking to problem-solving in ethically and socially responsible ways | Students submit two papers based on their own mini-research projects on topics and problems drawn from across the spectrum of social science disciplines. |
| 4. Think critically, communicate effectively, and work collaboratively | Students formulate and conduct research in small groups. |
| 5. Synthesize and transfer knowledge across disciplinary boundaries | Combination of exams, lectures, and discussions. |

**Course Intended Learning Outcomes and Methods of Assessment:**

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| Learning outcomes | Assessment methods | |
| **1.** Application of theoretical approaches underlying research methodology from a historical, cultural, and ethical context and the ability to choose the proper theoretical foundation for a research project. | **1.** Classroom discussion of theoretical approaches; quizzes and exams to identify factual material; in-class and online participation activities on the application of theory to practice when choosing a research project. | |
| **2.** Determining the difference between quantitative and qualitative designs and an understanding of how and when to apply each design using the scientific method. | **2.** Class discussion surrounding current research articles and projects that use quantitative, and/or qualitative, research design; in-class or on-line group discussion and participation activities of the benefits/drawbacks of each; paper assignment on constructing a design outline for a research project. | |
| **3**. Understanding the role and importance of ethics and the ability to critically analyze risks versus benefits when conducting research. | **3.** Classroom discussion surrounding studies on ethics; in-class or on-line group discussion in response to conducting research with human subjects; creation of informed consent form to be included in with project; certification and conducting research with human subjects-Institutional Review board. | |
| **4.** The ability to create and test a hypothesis, including the capacity to conduct a proper literature review and to logically apply past findings to the creation of an Introduction Section. | **4.** Classroom discussions of testable versus non-testable questions; library class on available resources and in-class or on-line development of Introduction Section. Exam #1 | |
| **5.** Analyzing observational methods with and without intervention, archival research and content analysis, and case study designs. The ability to apply this understanding to the proper creation of a method while considering the benefits and drawbacks of using each design. Determining proper sampling methods and avoiding selection bias. Students will be able to begin creation of Methods Section of poster/paper | **5.** Classroom discussions of the various observational studies used in research and proper sampling methods; quiz; in-class or on-line group discussion and participation activities demonstrating how to utilize observational methods and in-class or on-line outline construction of Methods Section. | |
| **6.**  Determining when and how to use quasi-experimental design including one group pretest/posttest design and ABAB design. The ability to apply this understanding to the proper creation of a method while considering the benefits and drawbacks of using each design. Continued application towards creation of Methods Section of poster/paper. | **6.** Classroom discussions comparing different types of quasi-experimental designs; quiz; Continued preparation of Methods Section via in-class or on-line group discussions. | |
| **7**. Creating survey/questionnaire designs using reliability and validity measures including appropriate data collection methods and analysis for mail surveys/questionnaires, telephone surveys/questionnaires, personal interviews, and internet surveys/questionnaires. The ability to apply this understanding to the proper creation of a method while considering the benefits and drawbacks of using each design. Continued application towards creation of Methods Section of poster/paper. | **7.** Classroom discussions of appropriate Likert scale construction, reliability and validity; in-class or on-line group discussion and participation to distinguish between different survey methodologies; In-class or on-line continued group discussion and work on refining of Introduction and Methods Sections; In-class or on-line preparation of Results Section. | |
| **8.** Appropriate application of univariate and bivariate distributions, including the ability to understand the appropriate use of correlational designs. The ability to read scatterplots. Application of univariate and bivariate distributions to the creation of a Results Section. | **8.** Classroom discussion of appropriate application of univariate and bivariate data; in-class or on-line group discussion and in-class exercise/review examining the proper application of correlational designs. In-class or on-line continued preparation of Introduction, Methods, and Results Sections. | |
| **9.** Using the logic behind the construction of experimental designs and the application of statistical analysis to confirm findings and to determine proper methodology and proper reporting of Results section. Continued application of material towards creation of Results Section. | **9.** Classroom discussions on experimental designs; in-class participation activity conducting their own pilot experiment; participation activity reflecting on experiment; Classroom discussions about cause and effect; quiz; In-class or on-line continued preparation of Introduction, Methods, and Results Sections. | |
| **10.** The ability to logically draw conclusions based on research findings, and the ability to properly prepare, construct, and present an APA style poster or paper. | **10.** Classroom discussions; quiz; in-class or on-line group discussion and assignments throughout the semester on APA style; students will use paper assignment; in-class student poster presentations of research proposal; Group research project proposal due | |
| **General education learning outcomes/assessment methods**  |  |  | | --- | --- | | Learning outcomes | Assessment methods | | **1. Knowledge:** Using different methodological concepts students develop an understanding of the key concepts and varied forms of analysis used in conducting research on social problems | **1.** Discussion of theories and concepts with a focus on developing the ability to apply theory as a foundation for applied research; Students will be assessed as to how best they articulate these ideas and concepts through in-class and on-line discussions, in written assignments, group participation activities, and a group research project proposal and presentation. | | **2. Skills:** Proficiency in applying the scientific method to research, report, and draw conclusions using data collected by the student and to comprehend the findings reported by others. | **2.** Students will demonstrate an understanding of the basic types of research methods and to assess which are best suited for particular research questions. Students will be assessed as to how best they articulate these ideas and concepts through class exams, class discussions, and research design projects. | | **3. Integration:** Development of student’s ability to formulate research questions based upon a critical appraisal of existing research across social and behavioral disciplines. | **3.** Students will be able to formulate questions that are appropriate to different types of research projects in related disciplines; assessment of this ability will be measured via the final research project, on exams and in class discussions and participation activities focused on this learning outcome. | | **4. Values, Ethics and Relationships:** Application of fundamental research concepts to understanding human behavior and social systems; awareness of the importance of creatively working with others to solve problems and appreciate diverse viewpoints when analyzing real-world problems. | **4.** By the end of the course, students will demonstrate an understanding of the scientific method in the context of the term research proposal. This will involve identifying a problem and relevant variables so that the most appropriate method can be applied to the research proposal. |   **CUNY attendance policy:** Consistent attendance in the class is CRUCIAL for success. If you miss class, you forego personal explanations of the handouts, your homework also gets marked late so you lose points on your homework grade. | |

**Textbook:**

Required: *Social Science Research: Principles, Methods, and Practices*, by Anol Bhattacherjee. Open Access: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks>. Available for **free** online. Several handouts on BB are also part of the required reading.

**Grade breakdown:**

Two Exams: 30%

Multiple choice. If you are more than 15 minutes late, you may not be allowed to take the exam. If you miss an exam, you must request a make-up the week before or following week.

Homework 30%

Homework usually based on your readings or videos or class work from the day before. Late homework is accepted, but with points off and only until the following test.

Quantitative and Qualitative Papers 30%

Discussion/ Participation 10%

The College grading scale will be used: 93-100% (A), 90-92.9% (A-), 87-89.9% (B+), 83-86.9%

(B), 80-82.9% (B-), 77-79.9% (C+), 70-76.9% (C), 60-69.9% (D), 59.9% and below (F).

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| **Date** | **HOMEWORK** | **IN Class** |
| Week 1  6/3 Mon |  | How do the natural sciences differ from engaging in social science? Hawthorne effect. PPT on 1) Types of social science. 2) History of Science |
| Tues | Read Handout #1 on cultural studies & answers questions at the end. | Induction vs. deduction.  GUEST SPEAKER 1: CULTURAL STUDIES (Monica Berger)  How do you evaluate pop culture? |
| Wed. | Read Chapter 1, then answer and bring to class:  1. Explain the two pillars of sciences.  2. What’s another name for theory building-approach? For theory-testing approach? When is it better to use which approach?  3. What is positivism? Give an example of how it was used.  4. What is anti-positivism? Give an example of how it was used.  5. What did Marx argue in *Das Kapital*? | First in-depth group research. |
| Thurs. | Show me the notes of your observations from at least ONE subject. | More in-depth data gathering. PPT On Qualitative analysis & Ethnography. |
| Week 2 6/10 Mon. | **IN-DEPTH QUALITATIVE PAPER DUE.** NO LATE papers are accepted. | Select students present their papers. Lecture on race, colorblindness and the “code of the street” |
| Tues | Read Handout #2 on mysteries in US history. | GUEST SPEAKER 2: HISTORY Prof. Peter Parides. How do you sort history? On understanding different perspectives on WWII. |
| Wed. |  | Belmont Principles. ppt. Ethics of research. |
| Thurs. | Watch video on inequality in America and take notes. <https://www.youtube.com/watch?v=QPKKQnijnsM> | GUEST SPEAKER 3. ECONOMICS Prof. Sean MacDonald. What is sustainable economic and how do you know it when you see it?  Review for midterm. |
| Week 3  6/17 Mon. | **Study! MIDTERM EXAM** Multiple choice. Bring a pencil and any late homework. NO late homework is accepted after today. | * 1. **MIDTERM EXAM**   Anatomy of a research paper. Quantitative Group. Decide on topic and research the literature. Each student finds their own article. |
| Tues | SUMMARIZE 3 sections from the article you found by skimming it and listing: the: 1) hypothesis, 2) method of how they collected data and 3) the findings in the research article you read. To what extent were the hypotheses supported by the test the authors employed? | Share what you learned from your article with others in your group.  GUEST SPEAKER 4. PSYCHOLOGY Prof. Jean Hillstrom. On Conducting Experiments |
| Wed. | Read Chapter 6 and answer the questions below.   1. Define the difference between: nominal, ordinal and scale variables. 2. What are the advantages of using a Likert type scale? 3. Describe Likert’s scaling method. | Lecture on different type so research design, how quantitative compares to qualitative data.  In class, come up with your research design & hypothesis in your group. Begin to operationalize your variables. |
| Thurs. | DUE: Quant. Paper a. One page intro and articulation of your hypotheses, specify: your IV, DV what you need to control for. | Each groups agrees on the DV and writes ONE questionnaire. |
| Week 4  6/24 Mon. | Print out 25 copies of your survey to pass out in class, if I have approved it. Hand in one copy to me where you identity EACH question. Is it measuring your IV, DV, items, or your control variables? Come to class with your survey downloaded into USB or emailed to yourself. | We collect data in class.  Lecture on confounding and control variables, case, variable, value. Index creation. |
| Tues | Your data entered into an Excel spreadsheet. Bring it on a flash drive, much easier to work with than the cloud!! | Lecture on mean measures, normal distributions, s.d. and correlation.  You will start analyzing your data.  Data analysis. Create Table 1 & 2. |
| Wed. | DUE: Quant. Paper b. Table 1, with an analysis of at least three main variables written up AND table 2, explain the most significant correlations. | * 1. Testing your hypothesis. Lecture on ANOVA and linear regressions basics and assumptions. |
| Thurs. | DUE Quant. Paper c. Table 3, with an explanation of whether your hypotheses were support or not. | * 1. Lecture on Interpreting Quantitative Results, null hypothesis, Type 1and 2 errors. |
| Week 5  7/1 Mon | Read Chapter 5 and answer the questions below.   1. Describe the four types of validity. 2. What are two ways of increasing internal validity? 3. Why is random assignment important for ensuring external validity? 4. What is an experimental design consist of? 5. What is a cross-sectional field study and how is it different from a longitudinal one? | Lecture: On the misuse of social science. |
| Tues | DUE: Quantitative Research Paper. Follow the rubric to the letter. It must include 3 tables & 5 sections. You put Quant paper a, b, and c. together, incorportate my earlier comments into your final draft. | Review for final exam. |
| Wed. | **Study for the FINAL Test** (not cumulative)**.** | **FINAL Test!** |

**Academic Integrity at City Tech**

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion.  The complete text of the College policy on Academic Integrity may be found in the catalog.

**For students with disabilities:**

Reasonable accommodations will be made for students with documented disabilities. If you have specific physical, psychiatric or learning disabilities and require accommodations, please let me know as soon as possible, but definitely before the date of the first assignment, so that your learning needs may be appropriately met. If you have not already done so, you will need to provide documentation of your disability to the Center for Student Accessibility.