openlab**Research Methods in the Social and Behavioral Sciences (SBS2000ID)**

*Interdisciplinary Course*

*Fall 2018*

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**Required Materials**

**Text:** Social Science Research: Principles, Methods, and Practices. Author: Bhattacherjee, Anol. Published 2012. You can obtain the text for free at: https://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=79

**Course Information**

**Catalog Description:** An introduction to the research methodologies utilized in the social and behavioral sciences, 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.

**Course-Specific Learning Outcomes and Assessment Methods:**

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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. Regular in-class discussion of readings accompanied by in-class assignments that lead to the presentation of a poster at the end of the semester or a paper. Homework assignments that reinforce and add to the completion of the final project and class discussions. |
| 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 designs; 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. Demonstrate an understanding of the role and importance of ethics when doing research with human subjects and animals. | 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.. Completion of the CITI certification in HSR and RCR before data collection. |

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| 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 and/or quiz items. |
| 5. Analyzing observational methods with and without intervention, archival research, 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, archival research, content analysis and/or case 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; exam and/or quiz items; 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 |

**Interdisciplinary Course:** This course addresses the evolution of research design from formulating hypotheses to developing research projects grounded in methods of scientific inquiry in order to investigate and hopefully provide answers to questions typically raised in social and behavioral sciences (but not necessarily limited to those fields). Our goal in this interdisciplinary course is to develop a “tool box” with a variety of research tools so that when a problem requiring an understanding of research methodology arises, you can select the tool(s) appropriate to the question and use it/them correctly. Learning the use of a tool in context (e.g., an economics researcher discussing research methodology tools in the context of their discipline) provides depth of knowledge and the role of the instructor in an interdisciplinary course is to point out similarities and differences in the tools and to encourage their appropriate use. This course brings together disciplinary research skills from of a variety of disciplines to bear on research questions commonly encountered in today’s world.

**Interdisciplinary Learning Outcomes and Assessment Methods:**

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| *LEARNING OUTCOMES* | *ASSESSMENT METHODS* |
| Purposefully connect and integrate across-discipline knowledge and skills to solve problems. Because all areas of social and behavioral science utilize some form of the scientific method this course can purposely connect and integrate concepts and methods from multiple disciplines to the application of interdisciplinary research questions and protocols. For example, a student interested in the study of teen alcoholism prevention might incorporate interviews and archival data (in the way that anthropologists and sociologists might) to present a narrative account of the behavior, a survey and/or correlational method to quantitatively describe potential relationships between behaviors (in the way a psychologist or social worker might), and use evaluation research to determine if intervention programs are working and at what cost (economics) so that changes, if necessary can be made. The examples used in this course to demonstrate modes of scientific inquiry, analysis, and presentation will be taken from across all areas of social and behavioral science and when possible delivered by professors working in the field. Moreover, students will be expected to collaborate with their classmates so that final projects are developed using interdisciplinary research frameworks. | Students will be expected to collaborate with their classmates so that final projects are developed using interdisciplinary research frameworks |
| Synthesize and transfer knowledge across disciplinary boundaries. All students who take this course will have taken an introductory social and/or behavioral course and therefore will have been introduced to the foundations of research methods for that discipline. The purpose of this course will be to integrate that introductory level of learning across other disciplines that use the scientific method. The skills developed in this course will expose students to a deeper understanding of the scientific process that will broaden their methodological options for use in the creation of a research project for this class, and later can be generalized to meet the challenges presented in other courses that require critical analysis of a problem. | In-class student poster presentations of research proposal; exam items; class participation |

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| Apply integrative thinking to problem solving in ethically and socially responsible ways. Students will complete CITI ethics training and will apply the skills obtained during this training to ensure the use of ethical principles are adhered to when conducting their research project; they will develop an understanding of the ethical implications and consequences of their research and how to properly handle personal information, and how to properly report scientific information to various communities. Students will work collaboratively to incorporate their knowledge into the design of a year-end interdisciplinary research project that will show respect for the perspectives of other disciplines. | Class participation, essay questions, activity papers. |
| Recognize varied perspectives. Students will acquire an understanding of the varied theoretical principles underlying social and behavioral science and the ability to apply these diverse perspectives to the development of fundamental research design techniques. They will test their ideas using evidence from the social and behavioral sciences as a foundation to form conclusions that are creative and dynamic. | In-class and homework assignments related to the completion of the poster presentation or paper; discussion assignments; activity papers, quizzes. |
| Think critically, communicate effectively, and work collaboratively. Research methods requires that students develop a variety of research skills that span across the social and behavioral sciences and must show the ability to apply these competencies in creating a testable research question that can be answered using scientific methodology. Students will work collaboratively using this knowledge to evaluate and critique their own proposals as well as the proposals of fellow students. | Students will work collaboratively using this knowledge to evaluate and critique their own proposals as well as the proposals of fellow students. |

Course Policies

**Professionalism:** Professionalism is for everyone, is expected of everyone, and covers much more than ethics and appearance. Professionalism also addresses accountability, being responsible, having a positive work ethic, civility, manners, striving for excellence, respect, developing skills and expertise in one’s arenas, and other attributes of professionalism. Professionalism is a skill that can be learned and honed through practice and experience. Professionalism will be the norm in this course. For more information, please visit the following website: <http://www.tipsforsuccess.org/professionalism.htm>.

**Attendance Policy & Lecture:** Attendance is absolutely necessary in this course.

For in-class sessions, roll is usually taken at the beginning of class; if you arrive after roll or leave before class is over, you are counted as late. Sleeping in class counts as a “late.”

**Lecture:** The lecture material is intended to supplement the text and the online component. You will find copies of the PowerPoint slides in the *PowerPoint* section of Blackboard. Lectures will cover some material in the text in greater detail while also covering topics not discussed in the text. Lecture is not intended to be a reiteration of the text material; some independent mastery is the norm. **You are expected to read the assigned materials before class and bring your PowerPoint slides to class** (electronic or hard copy)**.**  Furthermore, all assigned material is important whether covered in class or not.

**Late Policy:** All assignments are due at the beginning of class unless otherwise noted. Late assignments are penalized 25% if turned in after the class starts (*even if they are only 2 seconds late*) per day (including weekends and holidays).

**Make-up Policy:** There are very few opportunities to “make-up” missed work. Exceptions *may* include unexpected surgery, contagious illnesses (e.g., chicken pox), court appearances, etc. In these cases, you must notify me as soon as possible and provide proper documentation of your excused absence. If you know you will be missing class, you must notify me in advance.

**Nondiscrimination Policy:** Inappropriate or discriminatory behaviors or comments are counterproductive to the academic process, so I expect that students in this course will behave in a manner respectful of their classmates, regardless of actual or perceived differences.

**ADA Accommodations:** If you require course adaptations or accommodations because of a documented disability, please provide the appropriate documentation as soon as possible.

**Electronic Etiquette**: When communicating electronically (email, *Blackboard,* …) it is important to keep your audience in mind. In this case it is a professor or fellow student. We expect that all communication will be completed on a college level and in a professional manner. Use the following as a guideline:

* always address the person receiving the communication by name (Dr. Hillstrom or Hi Bob)
* ensure your name is clearly communicated in messages. Place it at the end of your communication (Hi Kim, nice work on that draft, Bob Hillstrom)
* don’t abbreviate or use “texting lingo”; write the complete word (you, not “u”, etc.)
* always include an informative subject heading when sending email (Chapter 4 homework)
* proofread for spelling, grammar, and other errors.

The following website should be reviewed to ensure that all electronic communication is completed properly: <http://writingcenter.unc.edu/handouts/effective-e-mail-communication/> **I WILL NOT RESPOND TO COMMUNICATION THAT FAILS TO CONFORM TO THESE STANDARDS.**

**Email:** I will use the CityTech email system to notify you of any schedule changes, announcements, etc. Be sure to check your email account frequently. If you email me, be sure to identify yourself by name, course, and section number or class time. I *do* respond to every email we receive that is professional and properly identified. If you have problems with your CityTech email or password, contact the Student Helpdesk at (718) 260-4900 or email: studenthelpdesk@citytech.cuny.edu

**Academic Honesty:** While you are free (and encouraged) to discuss your work with other members of the class, it is unacceptable to copy or “borrow” anyone else’s work or to “lend” your own work to others. It is also unacceptable to use unapproved resources for coursework.  ***Academic dishonesty of any kind is not tolerated and will result in failure of the course and may result in other disciplinary actions.***

*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.*

— NYCCT statement on academic integrity

***What is academic dishonesty?***

Academic dishonesty occurs when individuals plagiarize or cheat in the course of their academic work.

***Plagiarism*** is the presenting of someone else’s ideas without proper credit or attribution. *These ideas could come from:*

1. Information obtained from books, journals or other printed sources.

2. The work of other students or of faculty.

3. Information from the Internet.

4. Software programs or other electronic material.

5. Designs produced by other students or faculty.

***Cheating*** is the unauthorized use or attempted use of material, information, notes, study aids, devices or communication during an academic exercise. *Examples of cheating include:*

1. Copying from another student during an examination or allowing another to copy your work.

2. Unauthorized collaboration on a take-home assignment or examination.

3. Using notes during a closed-book examination.

4. Taking an examination for another student, or asking or allowing another student to take an examination for you.

5. Changing a graded exam and returning it for more credit.

6. Submitting substantial portions of the same paper to more than one course without consulting each instructor.

7. Preparing answers or writing notes in an exam manual before an examination.

8. Allowing others to research and write assigned papers or do assigned projects, including the use of commercial term paper services.

9. Giving assistance to acts of academic misconduct/dishonesty.

10. Fabricating data.

11. Unauthorized use of electronic devices such as cell phones, text messaging devices, palm pilots, computers or other technologies to retrieve or send information during an exam.

**Grading Scale**

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).

**Teaching and Learning Methods**

In order to accommodate a variety of learning styles, the typical class will consist of a variety of teaching methods including lecture, discussion, activities, films, and so forth. Online discussions will also be based on lectures, activities, films, etc. The primary methods for learning are:

* Thorough reading and critical evaluation of assigned readings
* Active discussion of readings and class/online participation
* Written reflection on selected topics (in-class and online)
* Engagement in online activities for learning reinforcement
* Demonstration of content mastery through assignments and examinations

**Assessment Methods**

**Point Distribution:**

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| --- | --- | --- |
|  | Points per: | Total number of points: |
| 2 Exams | 100 | 200 |
| Project | 100 | 100 |
| Assignments/quizzes/etc. |  tba | 100 |
| Midterm meeting | mandatory | mandatory |
|  |  | 400 total points |

**Exams:** Two objective, timed, online exams will be given. The exams are *very challenging*, in-depth, and will cover *all* assigned material from the text, lecture, PowerPoint, videos, and assignments. Each exam is comprised of approximately 50 questions and you will have 120 minutes to complete each. You must take exams during the exam “window.” Exams can be found in the *Exams* section in the menu in Blackboard and will become available during the exam window. Exam windows are approximately 3 days long and you must start the exam before the exam window ends. You may take the exam up to 3 times as long as you are in the exam window. There is an additional, 4th attempt available so you can print your exam. Feel free to use this attempt as a “free” attempt. Your highest attempt will count as your grade. If you want to see your grade, go to Tools > My Grades. Do not procrastinate! *You may use material from lecture, your text, your study guide, and other class activities and assignments.*  **Classmates and other individuals, the internet, and so forth may NOT be used.**  In addition, refer to the section on Academic Honesty above. Your lowest exam grade will be dropped.

In the unlikely event that you experience a technical failure (e.g., internet at CityTech goes down) and the exam window deadline is approaching or has passed, email me immediately! Be sure to take exams *well before the deadline*.

**Exam Coverage:**

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| --- | --- |
| Exam | Chapters |
| 1 | 1, 2, 3, 4, 5, 6, 7, 8, 16 |
| 2 | 9, 10, 11, 12, 13, 14, 15 |

**Assignments:** You will complete various assignments throughout the semester. Specific instructions will be given with each assignment. Some of the assignments may use the Discussion Board. If other materials and references (e.g., your text) are used, they MUST be cited in text at a minimum (e.g., Doe, 2006). Due dates will be assigned in class. See policy on late assignments above.

**Project:** A handout will be given in class with specifics. During the month of December, you will briefly present your project. Late projects will not be accepted under any circumstances. More information about the requirements will be given in class.

**Midterm Meeting:** You must make an appointment to meet with me between October 9th and October 18th in my office (N626) to discuss your progress in the course and to determine your midterm grade. This meeting is MANDATORY. You cannot pass this class without this meeting.

Thank you for taking this course. By the end of the semester, I hope you will have learned many things. Better yet, I hope you will have formed many new questions to be answered. I wish you the best of luck in your career and in your life. Please keep in mind that I do not give a student a grade. I merely record the grade that each student earns.

Tentative Schedule

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| Week | Topic | Reading |
| Section 1: Introduction to Research  |
| 1 | \*Introduction to the course\*Science and Scientific Research\*Guest Lecture: Adam Savage (TED), TV Producer | -Chapter 1 -How Simple Ideas Lead to Scientific Discoveries |
| 2 | \*Thinking Like a Researcher\*The Research Process\*Guest lecture: Uri Alon (TED), Physicist\*Guest lecture: Shalamar Raimie, Student Researcher\*Research Ethics\*Guest Lecture: Dan Ariely (TED), Behavioral Economist | -Chapter 2, 3 & 16-The Unspoken Research Process-Scientific Conflict of Interest |
| 3 | \*Theories in Scientific Research\*The Research Question\*Guest Lecture: TBD Economicsa | -Chapter 4 |
| 4 | \*Research Design\*The Empirical Article\*The Literature Review\*Guest Lecture: TBDb | -Chapter 5 |
| Section 2: Basics of Empirical Research |
| 5 | \*Research Design cont.\*Guest Lecture: Ben Goldacre (TED), Epidemiologist\*Measurement of Constructs\*Guest Lecture: TBDd | -Chapter 6-Battling Bad Science |
| 6 | \*Scale Reliability and Validity | -Chapter 7 |
| 7 | \*Sampling | -Chapter 8 |
| Section 3: Data Collection |
| 8 | \*Survey Research\*Guest Lecture: Kathleen Frankovic and others, Public Opinion Polling, “How Do You Know if People are Lying on a Survey?”  | -Chapter 9 |
| 9 | \*Experimental Research\*Guest Lecture: Sheila Nirenberg, Neurophysiology, Weill Cornell, “What if robots could process visual information the way humans do?” | -Chapter 10 |
| 10 | \*Case Research\*Guest Lecture: TBD Sociologyc | -Chapter 11 |
| Section 4: Data Analysis |
| 11 | \*Qualitative Analysis\*Guest Lecture: Tricia Wang (TED), Technology Ethnographer\*Guest Lecture: TBD | -Chapter 13-Human insights missing from big data |
| 12 | \*Quantitative Analysis: Descriptive Statistics | -Chapter 14 |
| 13 | \*Quantitative Analysis: Inferential Statistics | -Chapter 15 |
| 14 | \*Work day |  |
| 15 | \*Poster Presentations |  |

Guest lectures to be finalized:

aGulgun Bayaz Ozturk, Ph.D.

bMonica Berger, Associate Professor

cHans Tokke, Ph.D.

dPhilosophy

GENERAL EXPECTATIONS OF HIGHER EDUCATION

**Students are expected to be responsible for their own academic achievement.** It is the student who is *ultimately* responsible for his or her own academic achievement. The instructor’s role is to assist students, to act as a guide, and to facilitate student academic achievement and achievement of course material. Instructors can motivate students only up to a point, after that point achievement depends on student self-motivation. However, in higher education student effort is also required. Instructor effort alone does not assure academic achievement.

**Expect academic work to be challenging and not necessarily entertaining.** Higher education is meant to be intellectually and personally challenging and stimulating. You should expect your coursework to be demanding. Instructors have an obligation to attempt to stimulate your interest, but students should also develop a mind set that seeks stimulation. Higher education is not meant to be easy, nor is it meant to be entertaining. Fun can definitely be a side effect of an engaging and stimulating course. If one of your main objectives is to entertained in the classroom, then you may be disappointed.

**Students are expected to view college as an opportunity for both career and personal development.** A college degree is definitely an established path to better paying and more stimulating career. Higher education also provides an opportunity for personal growth and development. To be an informed citizen, students need to understand themselves and the world around them. College provides an opportunity to develop that understanding. It is both the students’ and instructor’s responsibility to make course work relevant professionally and personally.

**Expect that every instructor will be unique.** Faculty in higher education have developed professional expertise in their particular fields. Faculty exercise a high degree of professional autonomy. This autonomy results in different teaching styles, different course policies, and different areas of expertise. Do not expect that all faculty will have the same course policies or teaching styles. If all courses were taught in the same manner higher education would be quite boring.

**Expect that not all academic performance will be rated as excellent or good.** Effective assessment of academic achievement discriminates between students who do excellent (A), good (B), satisfactory (C), poor (D), and failing (F) work.

**Expect less instructor support as you move into sophomore, junior, and senior level classes.** It is expected that you will increase your study skills, writing skills, library research skills, subject knowledge, and maturity as you move into your upper division courses. Therefore, expect less assistance from your instructors in basic academic skills. It is ultimately your responsibility to develop these skills.

**Expect that your instructors will ask you questions about material covered in previous courses.** The material covered in any particular course will have relevance in other courses. Some courses will build on other courses.

PRACTICAL ADVICE FOR SURVIVING HIGHER EDUCATION

1. Use the textbook study guide and website (if available).

2. If you don’t understand something, ask a question. You can do this via email, on Blackboard, or in or outside of class.

3. Your existing study habits may not bring success in higher education. Be ready to make adjustments.

4. Learn to manage your time well so you can meet course deadlines and still have time for your personal life.

5. In many classes you are responsible for all the assigned readings, even if the material is not covered in class.

6. Remember that different instructors will have different rules of conduct in their classrooms. Make sure you know what they are.

IN COLLEGE...

1. classes are usually larger, testing may be less frequent, and there are no study hall classes.

2. there is less monitoring and oversight of student progress, less control of student behavior and greater personal freedom.

3. there are more curricular choices, students may do more writing, and college professors and students have more academic freedom.

4. coursework may be less textbook focused and faculty are likely to create and transmit original knowledge and research.

6. there is more work both in-class and out-of-class.

BEHAVIORS THAT ARE ENCOURAGED

1. Asking questions and showing curiosity.

2. Reading assignments prior to class.

3. Giving appropriate feedback to professors about how the class is going for you.

4. Making links to other learning experiences and sharing them in class.

5. Taking care of personal business (phone calls, bathroom, eating) before or after class.

6. Following directions.

BEHAVIORS THAT ARE UNACCEPTABLE

1. Arriving late to class, leaving early, or otherwise disrupting class.

2. Using electronic devices during class.

3. Allowing your cell phone to ring during class.

4. Sleeping in class.

5. Reading magazines, newspapers, or other materials during class.

6. Engaging in private conversations during class.

7. Showing disrespect for the opinions of your classmates.

8. Packing up your things to leave class before class is over.

9. Crumpling papers & eating during class.