# NEW YORK CITY COLLEGE OF TECHNOLOGY The City University of New York School of Arts & Sciences Department of Social Science Course Outline

Course Code: SBS 2000ID Course title: Research Methods for the Social and Behavioral Sciences Class hours/credits: 3 class hours, 3 credits Prerequisite: Prerequisite: Any introductory ANTH, ECON, GEOG, GOV, HIS, PSY, SOC, or, any AFR or LATS 1400 series course, or AFR 1501, 1502, 2402 or 3000, or COMM 2402, or 3401 and MAT 1180 or higher Pathways: not applicable College Option: Interdisciplinary

**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.

**Interdisciplinary Course\*:** The interdisciplinary theme of this course will be on creating and evaluating research using various scientific methodologies across disciplines, but with a principal interest in focusing on the perspectives of Psychology and Economics in research design, data collection and analysis/interpretation of findings.

\*The interdisciplinary theme will vary amongst the various interdisciplinary sections of this course.

# **RECOMMENDED TEXTBOOK and MATERIALS \***

Title: Making Sense of the Social World: Methods of Investigation Edition: 5th edition (4th edition is fine)

Author: Chambliss, David F. and Schutt, Russell K.

Publisher: Sage Publications, 2015

Materials: MS Excel or related data management software

\* The textbook used in a particular section will be chosen by the instructor.

#### COURSE INTENDED LEARNING OUTCOMES/ASSESSMENT METHODS

Learning Outcomes	Assessment Methods*
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.	Regular in-class discussion of readings accom- panied 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.

Determining the difference between quantitative and qualitative designs and an understanding ofhow and when to apply each design using the scientific method.	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.
Demonstrate an understanding an understanding of the role and importance of ethics when doing research with human subjects and animals.	Classroom discussion surrounding studies on ethics; in-class or on-line group discussion in response to conducting research with human sub- jects; creation of informed consent form to be included in with project; certification and con- ducting research with human subjects-Institution- al Review board. Completion of the CITI certifi- cation before data collection.
The ability to create and test a hypothesis, includ- ing the capacity to conduct a proper literature re- view and to logically apply past findings to the creation of an Introduction Section.	Classroom discussions of testable versus non- testable questions; library class on available re- sources and in-class or on- line development ofIn- troduction Section. Exam #1.
Analyzing observational methods with and with- out 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 draw- backs 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.	Classroom discussions of the various observa- tional studies used in research and proper sam- pling methods; quiz; in-class or on-line group discussion and participation activities demon- strating how to utilize observational methods and in-class or on-line outline construction of Meth- ods Section.
Determining when and how to use quasi-experi- mental 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.	Classroom discussions comparing different types of quasi-experimental designs; quiz; Continued preparation of Methods Section via in-class or on- line group discussions.

Creating survey/questionnaire designs using relia- bility and validity measures including appropriate data collection methods and analysis for mail sur- veys/questionnaires, telephone surveys/question- naires, personal interviews, and internet surveys/ questionnaires. The ability to apply this under- standing to the proper creation of a method while considering the benefits and drawbacks of using each design. Continued application towards cre- ation of Methods Section of poster/paper.	Classroom discussions of appropriate Likert scale construction, reliability and validity; in-class or on-line group discussion and participation to dis- tinguish between different survey methodologies; In-class or on-line continued group discussion nd work on refining of Introduction and Methods Sections; In- class or on-line preparation of Re- sults Section.
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 univari- ate and bivariate distributions to the creation of a Results Section.	Classroom discussion of appropriate application of univariate and bivariate data; in-class or on- line group discussion and in- class exercise/re- view examining the proper application of corre- lational designs. In-class or on-line continued preparation of Introduction, Methods, and Results Sections.
Using the logic behind the construction of experi- mental designs and the application of statistical analysis to confirm findings and to determine proper methodology and proper reporting of Re- sults section. Continued application of material towards creation of Results Section.	Classroom discussions on experimental designs; in-class participation activity conducting their own pilot experiment; participation activity re- flecting on experiment; Classroom discussions about cause and effect; quiz; In-class or on-line continued preparation ofIntroduction, Methods, and Results Sections.
The ability to logically draw conclusions based on research findings, and the ability to properly pre- pare, construct, and present an APA style poster or paper.	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 ofresearch proposal; Group research project pro- posal

# GENERAL EDUCATION LEARNING OUTCOMES/ASSESSMENT METHODS

Learning Outcomes	Assessment Methods*
KNOWLEDGE: To develop an intermediate un- derstanding of how to develop, construct and present a research project from hypothesis forma- tion to conclusion using the scientific method and an understanding statistical analysis.	Quizzes based on textbook readings; exams based on textbook readings, outside readings, and lec- ture; discussion assignments; final poster presenta- tion or paper.
SKILLS: Develop and apply the scientific method to critically read, analyze, discuss and develop their own ideas, and to think and critique the work of others; to understand the use of statistical analysis in drawing conclusions about their own work and the work of others; how to use software to create bar graphs, scatterplots, and line graphs to present their data and to understand the data of others.	In-class and homework assignments related to the completion of the poster presentation or paper; discussion assignments.

INTEGRATION: Development of student's ability	Quizzes based on textbook readings; exams based
to formulate research questions based upon a crit-	on textbook readings, outside readings, and lec-
ical appraisal of existing research across all social	ture; discussion assignments; final poster presenta-
and behavioral disciplines.	tion or paper.
VALUES, ETHICS, AND RELATIONSHIPS: Application of fundamental research concepts to understanding human behavior and social systems; awareness of the importance of creatively working with oth- ers to solve problems and appreciate diverse viewpoints when analyzing real-world problems.	Group work on discussion assignments, in-class discussions and assignments, preparation and pre- sentation of poster or paper, and CITI certifica- tion.

# INTERDISCIPLINARY COURSE LEANING OUTCOMES AND ASSESSMENT METHODS

Learning Outcomes	Assessment Methods*
Purposefully connect and integrate across-disci- pline 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 con- cepts and methods from multiple disciplines to the application of interdisciplinary research ques- tions and protocols.	Students will be expected to collaborate with their classmates so that final projects are devel- oped using interdisciplinary research frameworks.
Synthesize and transfer knowledge across disci- plinary 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 meth- ods for that discipline. The purpose of this course will be to integrate that introductory level of learning across other disciplines that use the sci- entific method. The skills developed in this course will expose students to a deeper under- standing of the scientific process that will broad- en 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; Group research project proposal.

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 de- velop 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 in- terdisciplinary research project that will show respect for the perspectives of other disciplines.
Recognize varied perspectives. Students will ac- quire an understanding of the varied theoretical principles underlying social and behavioral sci- ence and the ability to apply these diverse per- spectives to the development of fundamental re- search design techniques.	In-class and homework assignments related to the completion of the poster presentation or paper; discussion assignments.
Think critically, communicate effectively, and work collaboratively. The course requires that students develop a variety of research skills than span across the social and behavioral sciences and must show the ability to apply these compe- tencies in creating a testable research question that can be answered using scientific methodolo- gy.	Students will work collaboratively using this knowledge to evaluate and critique their own proposals as well as the proposals of fellow stu- dents.

\*will vary amongst the various interdisciplinary sections of this course.

# SCOPE OF ASSIGNMENTS AND OTHER COURSE REQUIREMENTS \*

CITI CERTIFICATION: All students will required to obtain CITI training and will receive IRB certification to conduct research with human participants.

DISCUSSION ASSIGNMENTS: The discussion aspect of the course provides an opportunity to interact with class members using Blackboard Technology in the Discussion Forum. In this format students should be given assignments that demonstrate how to:

- 1. Read and understand a peer-reviewed research article.
- 2. Properly construct and critique questionnaires and surveys.
- 3. Properly conduct various types of interviews and focus groups.
- 4. Construct and present a proper introduction, methods, analysis, and conclusion sections.
- 5. Use software to analyze and interpret statistics.

FINAL POSTER PRESENTATION/RESEARCH PAPER: The semester will culminate in the creation of an original research project either in the form of a poster presentation or by submitting a paper. The choice of final project is at the discretion of the faculty member.

EXAMS: A minimum of two in-class examinations. QUIZZES: Weekly Blackboard quizzes

FINAL GRADE DISTRIBUTION - elements and weight of factors determining the students' grade \* CITI Certification: 1 5% Discussion Assignments (a minimum of three): 20% Quizzes: 10% Exams: 2 5% Final Poster Presentation or Paper: 30%

\* may vary slightly per instructor to suit their own needs

### **CITYTECH GRADE POINTS:**

A	93-100	В	83-86.9	D	60-69.9
A-	90-92.9	B-	80-82.9	F	59.9 below
B+	87-89.9	C+	77-79.9	WU	Unofficial Withdrawal

# **ATTENDANCE POLICY**

It is the conviction of the Department of Social Science that a student who is not in a class for any reason is not receiving the benefit of the education being provided. Missed class time includes not just absences but also latenesses, early departures, and time outside the classroom taken by students during class meeting periods. Missed time impacts any portion of the final grade overtly allocated to participation and/or any grades awarded for activities that relate to presence in class.

Instructors may including a reasonable "Participation" grade into their final grade calculations for this course.

# ACADEMIC INTEGRITY POLICY STATEMENT

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.

### STUDENT ACCESSIBILITY

City Tech is committed to supporting the educational goals of enrolled students with disabilities in the areas of enrollment, academic advisement, tutoring, assistive technologies, and testing accommodations. If you have or think you may have a disability, you may be eligible for reasonable accommodations or academic adjustments as provided under applicable federal, state, and/ or city laws. You may also request services for temporary conditions or medical issues under certain circumstances. If you have questions about your eligibility and/or would like to seek accommodation services and/or academic adjustments, please email the <u>Student Accessibility Cen-</u><u>ter</u>.

#### COMMITMENT TO STUDENT DIVERSITY

The Department of Social Science complies with the college wide nondiscrimination policy and seek to foster a safe and inclusive learning environment that celebrates diversity in its many forms and enhances our students' ability to be informed, global citizens. Through our example, we demonstrate an appreciation of the rich diversity of world cultures and the unique forms of expression that make us human.

Week	Торіс	Hours
1	Introduction to Research in Social Science-Choosing a Project	3
2	The Scientific Approach	3
3	Ethics in Social Science, Institutional Review Board and certifica- tion	3
4	Problem Formulation and Theory Development; Conducting a Lit- erature Review; Hypothesis Testing and Operationalizing Variable; Writing an Introduction	3
5	Sampling, Selection Bias; Observational Methods; Archival Re- search; Case Studies; Constructing a Methods Section; term exam #1	3
6&7	Quasi-Experimental Designs; term exam #2 Survey Research & Questionnaire Construction	6
8 & 9	Introduction to Data Collection and Qualitative Analysis; Univari- ate and Bi-variate Distributions; Writing a Results Section;	6
10	Introduction to Research Design: True Experiments	3
11 &12	Writing the Full Research Report, Implications, Conclusions and Future Directions	6
13 & 14	Draft Group Research Proposals Due and Student peer-review of research proposal; final exam	6
15	Final Group Research Presentations/Papers Due	3

### SAMPLE SEQUENCE OF TOPICS AND TIME ALLOCATIONS \*

\* may vary slightly per instructor to suit their own needs

Written by: Sean MacDonald, Ph.D., Maria Pagano, Ph.D. Reviewed/revised by Maria Pagano, Ph.D. Date: December, 2015 Revised by Peter Parides, Spring 2021