

**New York City College of Technology
Interdisciplinary Committee**

Application for Interdisciplinary Course Designation

Date: December 5, 2016

Submitted by: Ernest Cote

Department(s): Social Science

I. Proposal to Offer an Interdisciplinary Course

1. Identify the course type and title:

☒ An existing course: SBS 2000 Research Methods for the Behavioral and Social Sciences

☐ A new course _____

☐ A course under development _____

2. Provide a course description

This course will provide students an overview of commonly observed perspectives and methodologies used to conduct research across a variety of disciplines in the social and behavioral sciences (anthropology, economics, history, political science, psychology, and sociology). Students will participate in traditional research design, data collection, analysis/interpretation of results, and final reporting of results to answer questions derived by an interdisciplinary understanding of scientific methodology from both a social and a behavioral science perspective. Students will demonstrate their knowledge and skills by taking part in a semester-end group poster presentation of their work that will be reviewed by members of the Social and Behavioral Sciences Department. Students will also participate in discussion groups 4 times throughout the semester on different journal articles from different disciplines, to help facilitate their understanding of multiple research paradigms.

3. How many credits will the course comprise? 3 **How many hours?** 3

4. What prerequisite(s) would students need to complete before registering for the course?
Co-requisite(s)?

Any Introductory ANTH, ECON, GEOG, GOV, HIS, PSY, SOC, or, any AFR or LTAM 1400 series course, or AFR 1501, 1502, 2402 or 3000, or COMM 2402, or 3401 and MAT 1180 or higher; ADGA students will also need the prerequisite of PSY 3407 Psychology of Perception.

5. Explain briefly why this is an interdisciplinary course.

This course is designed to provide students the ability to apply scientific reasoning in the construction of methodology that will address complex questions and problems across various social and behavioral disciplines. Using lecture, in-class discussion and assignments, and group work, students will be exposed to the theories and methods of multiple disciplines while developing integrated, original research projects. Faculty and speakers from other social and behavioral disciplines (social work, biology, education, etc) will serve as guest lecturers (approximately 20% of the course) and will provide students with an understanding of the importance of professional disciplines working together to generate and disseminate knowledge. In a large majority of the cases, topics covered in this course will integrate knowledge from a variety of social and behavioral methodologies. For example,

- (1) The synthesis of theoretical and methodological literature written from a variety of disciplines
- (2) Ensuring the ethical treatment of participants, and proper handling of personal information and data, with an emphasis on confidentiality
- (3) Structured observational research, e.g. a guest speaker on naturalistic observation of how people learn new skills
- (4) The understanding of correlational and experimental designs
- (5) The construction and evaluation of survey data, including lying scales, forced choice, etc

However in other cases, topics in the course will integrate knowledge from a limited set of social and behavioral sciences¹. For example,

- (1) How to design evaluations (evaluation research) of social programs (economics, political science, psychology, and sociology)
- (2) Archival research (anthropology, economics, history, political science and history)
- (3) Naturalistic observational research (anthropology, sociology, psychology, political science)
- (4) Case studies, interviews, oral histories (anthropology, psychology, political science, and history)
- (5) Ethnography (anthropology, sociology)

6. What is the proposed theme of the course? What complex central problem or question will it address? What disciplinary methods will be evoked and applied?

The proposed theme of the course addresses the evolution of research design from formulating hypotheses to the development of research designs based on methods of scientific inquiry that will provide answers to questions raised by social and behavioral scientists.

- (1) The course will develop the skills needed to scientifically pose questions based on different theories found across social and behavioral disciplines and to determine ways of incorporating proper methodology to collect, analyze, interpret and report data.
- (2) Different approaches will be presented to incorporate an understanding and appreciation of the importance of a scientific approach when investigating problems from an anthropological, economic, political, psychological, sociological, and historical perspective.
- (3) This course will help students achieve understanding by explicitly connecting the disciplines of social and behavioral science to issues of ethics and policy with a focus on integrating theoretical perspectives across disciplines.

¹ Although these methodologies are more commonly used in the disciplines noted in parentheses, this does not mean that the methods cannot be used in other social or behavioral sciences. The examples provided are those disciplines that commonly use such techniques for inquiry.

7. Which general learning outcomes of an interdisciplinary course does this course address? Please explain how the course will fulfill the bolded mandatory learning outcome below. In addition, select and explain at least three additional outcomes.

X Purposefully connect and integrate across-discipline knowledge and skills to solve problems
Understanding research methodology is fundamental for all of the social science disciplines, and by using tools from different methods students can get a good grasp of how research methods function for different jobs and in different paradigms. For example guest psychologists using exercise to help memory function could speak about the methods used in experimental design and the instruments used in measuring memory function. A Neuroscience experiment can use behavioral interventions to develop different structures in the brain. A guest speaker on music and learning can elaborate the methods used in the field to observe how people learn new skills or instruments. Understanding the impact of homelessness on different communities can underscore how social work and human service majors can incorporate research methods into their careers later on.

X 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.

- ☐ Comprehend factors inherent in complex problems

X 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.

X 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.

- ☐ Gain comfort with complexity and uncertainty
-

X 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 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.

- ☐ Become flexible thinkers
-

- ☐ Other
-

General Education Learning Goals for City Tech Students

- **Knowledge:** Develop knowledge from a range of disciplinary perspectives, and hone the ability to deepen and continue learning.
 - **Skills:** Acquire and use the tools needed for communication, inquiry, creativity, analysis, and productive work.
 - **Integration:** Work productively within and across disciplines.
 - **Values, Ethics, and Relationships:** Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains.
8. **How does this course address the general education learning goals for City Tech students?**
Students will develop in the following areas the ability to:
1. **Knowledge:** understand how to use scientific methodology and then generalize this knowledge across different social and behavioral disciplines to test hypotheses.
 2. **Skills:** create and evaluate research using various scientific methodologies across different disciplines.
 3. **Integration:** utilize the skills developed during this course to build upon material presented in other courses outside the boundaries of social and behavioral science.
 4. **Values, Ethics, and Relationships:** develop an understanding of the values, ethics and diverse perspectives that lead to an understanding of the conclusions that are based on scientific evidence through working with others in developing and testing hypotheses.

9. Which department would house this course²? Social Science

Would all sections of the course be interdisciplinary? ☒ No ☐ Yes

a) Would the course be cross-listed in two or more departments? ☒ No ☐ Yes
Explain.

b) How will the course be team-taught³? ☐ Co-taught ☒ Guest lecturers ☐ Learning community

If co-taught, what is the proposed workload hour distribution? _____

☐ Shared credits ☐ Trading credits

If guest lecturers, what approximate percentage of the course? ☐ X Minimum 20%⁴ ☐ other: 25%

c) Please attach the evaluation framework used to assess the interdisciplinarity of the course.⁵

1. Following each class lecture session, assignments will be given where students will be required to incorporate the material of the lecture into building the different sections of a final research project, beginning with the formulation of a hypothesis and ending in a presentation of the completed research project.
2. In-class lectures and demonstrations on the appropriate use of the scientific method will be incorporated into face-to-face meetings and students will build on in-class demonstrations by working in groups. For example, data will be collected from a sample of the student population on a topic. In turn, students will be shown how to create and interpret visual displays of data in light of normal distributions. Students will then be given the opportunity to collect data from the class from which they will be required to create and interpret their own visual displays of data.
3. Five blackboard quizzes will be given, as well as an in class midterm and final. Approximately one-half of the exams and approximately 25% of the quizzes will require students to answer basic methodological questions from various social and behavioral perspectives, thereby demonstrating their ability to integrate the material beyond one discipline. The same is for the poster presentations
4. Four class discussions on journal articles from multiple perspectives will help facilitate the understanding of textbook and lecture material into a real world usage, and help students be better consumers or research outside of their discipline.

² An interdisciplinary course for the College Option requirement may be housed in a department that is not liberal arts.

³ Attach evidence of consultation with all affected departments.

⁴ While an interdisciplinary course must be team-taught, there is no formal percentage requirement, but this minimum is a guideline.

⁵ In the case that a course is equally taught, include proposed plans for faculty classroom observation and student evaluation of teaching.

a. What strategies/resources would be implemented to facilitate students' ability to make connections across the respective academic disciplines?

1. One short supplemental reading for each chapter of the textbook, "Making Sense of the Social World: Methods of Investigation," by Chambliss and Schutt will present additional opportunities (in addition to those found in the text) for students to learn and understand the application of scientific methodology to a particular field of social and behavioral science.
 2. The supplemental readings will consist of journal articles from different disciplines and with different methodologies, in class discussions of such will help the student comprehend the methods and results section fully.
5. Would the course be designated as:
☒ a College Option requirement⁶? ☒ an elective? ☐ a Capstone course⁷? ☒ other? Explain.

This course could fulfill the college option requirement for an interdisciplinary course, an upper level social or behavioral science course, or an elective.

⁶ To qualify for the College Option, such a course must also meet the New York State definition of a liberal arts and sciences course. <http://www.highered.nysed.gov/ocue/lrp/liberalarts.htm>

⁷ A course proposed as a Capstone course must be separately approved by the Capstone Experience Committee.