I. COURSE DOMAIN

This course is designed to introduce you to and immerse you in the process of research as a sequence of events, systematically organized to further knowledge. A scientific and conceptual stance to knowledge development is emphasized, along with the importance of the empirical approach in establishing relationships between theories, concepts, and behavioral phenomena. Given the close relationship of design to analysis, this course is closely integrated with your introductory statistics course, and shares many of the same readings. The course is designed to help you develop the skills needed to conceptualize and plan a research project. We will walk you through the process, step by step. At the end, you will have completed a research design/proposal.

II. COURSE OBJECTIVES

1. To expose students to research as a means for advancing knowledge, through consideration of issues raised in selected readings on the philosophy of science.
2. To instill in students a commitment to using scientific approaches to knowledge building.
3. To introduce students to problems and tasks confronting researchers at each stage of the research process, and to explicate methodological strategies for the solution of these problems.
4. To enable students to critically analyze and consume research.
5. To prepare students to write and critique proposals.

III. EDUCATIONAL OUTCOMES

1. Students will be able to explain why they are doing what they are doing in research from a philosophy of science perspective.
2. Students will develop a commitment to using scientific approaches to knowledge building.
3. Students will be able to explain problems and tasks confronting researchers at each stage of the research process, and to describe how to deal with these issues.
4. Students will be able to critically analyze and consume research.
5. Students will complete a research design/proposal.

IV. TEXTS AND REQUIRED READINGS


*Additional readings will be provided throughout the course

V. ORGANIZATION OF COURSE

This course will be taught in a seminar format. The reading load has been intentionally reduced from that of prior semesters in order to allow students to focus on developing their own library of materials relevant to their areas of interest. The course will emphasize participation and depth of understanding.

VI. ROLE OF INSTRUCTOR AND STUDENTS

This class is your best chance to really start to gain some methodological expertise. I strongly recommend you jump in with both feet and become strongly involved in all aspects of the course. If you do not do so, you risk falling seriously behind. Your major tasks will include involvement in weekly discussions, completion of assignments and production of the final assignment.

The instructor expects students to: attend each class on time; complete all assignments in a timely manner; come to class prepared, having read all assignments outside of class; actively participate in class discussions and activities; seek any necessary clarification regarding course expectations from the instructor; and provide the instructor with feedback about the effectiveness of the course. Any problems with attendance, meeting deadlines, or completing assignments should be discussed promptly with the instructor. E-mail is the best way to contact the instructor: sbarnes22@wustl.edu.

Teaching Assistant (TA): The teaching assistant for this course will attend class, participate in classes meetings, aid in class session preparation, facilitate class discussions, and assist in grading. The TA will schedule appointments as needed.

How do I ask for help from the Instructor and/or TA for this course?
The instructor also expects students to seek assistance when needed. Proactive and creative problem solving is an essential competency. Prior to seeking assistance about an assignment from the instructor or TA, students are expected to: 1) have completed all the relevant readings; 2) have attempted to frame the problem clearly and succinctly; 3) have developed at least two alternative solutions with a list of the pros and cons for each; and, 4) have a clear and concise question or request for assistance; 5) take notes to facilitate later consideration and integration of feedback. These are all professional development skills.
**Expectations for written work:** All graded assignments must be typed with a Times New Roman or Arial 12-point font, single-sided, and have 1-inch margins. Text citations and references list must be in correct APA (6th ed.) format. The only change from APA format is that graded assignments will be Single-spaced work (and any additional changes that the Instructor may provide ahead of the assignment due date). All graded assignments MUST include an APA-formatted cover page. Assignments should be carefully proof-read for spelling and grammar (points will be deducted for non-adherence to writing quality or assignment instructions). Grading criteria will be provided for all assignments ahead of the due date. Students are strongly encouraged to use the assistance and services of the University Writing Center (314-935-4981, Eads Hall, Room 111). Points are deducted for papers not adhering to guidelines and graduate-level writing.

ALL TYPE-WRITTEN ASSIGNMENTS MUST BE EMAILED BY THE BEGINNING OF CLASS ON THE DUE DATE UNLESS OTHERWISE INDICATED BY INSTRUCTOR. THE DATE/TIME STAMP IS AUTOMATED AND WILL BE USED TO DETERMINE IF AN ASSIGNMENT IS LATE. Late assignments will be deducted by one point for lateness (beginning with the day and time the assignment is due, including weekends). No hard copies are needed.

**Policy on late assignments:** Papers must be turned in at the beginning of class time on the due date indicated in the syllabus (unless otherwise noted by the Instructor). Exceptions may be considered in cases of rare, extreme emergency (e.g. death in the family; documented hospitalization, etc.). Unexcused late assignments will result in a deduction of one point for lateness - beginning after the time it is due and each day afterwards (including weekends). The time/date stamp is verification of when it was turned in for grading. Timely feedback on late assignments is not guaranteed.

**Academic Integrity and Professional Conduct:** All sentences must be comprised of the student’s own words. Ideas, information, and concepts that originated with any other source must always be noted as such (based on APA format), including past work that you have authored. Please use plagiarism tools if you are unsure if your paper is in violation. Material that is not correctly cited (or content that is copied from another student’s work) is considered plagiarized and provides grounds for academic discipline. Please review the Ph.D. Program Policy and Procedures Manual (on InsideBrown) and the Graduate School of Arts and Sciences Academic Integrity Manual for further guidance on all matters of academic integrity and professional conduct for graduate students at Washington University.

**Policy on use of laptops/ electronic devices in class:** Laptops may be used in class to facilitate note-taking if you believe you need to use the laptop for note taking. However, students are not permitted to use laptops for surfing the web, checking e-mail and other uses unrelated to classroom note-taking. Such uses are distracting and inhibit engagement in classroom instruction and activities (and could impact your participation grade in this course). **You will be asked to NOT use your laptops when we have guest speakers unless otherwise announced.** Additionally, you may be asked to turn off computers during those class periods where engagement in the class content is critical (e.g. small group exercises; etc.). Similarly, use of cell phones, PDAs and other such electronic devices is not acceptable during class sessions.

**Attendance and Active Participation:** Attendance (for the full class session) and active participation are expected. Unexcused absences and inactive/no participation will be reflected in the participation portion of your course grade. Attendance and active participation includes being on time for class, being present for
the entire class session, returning on time from the timed class break, being prepared for class, having read all assignments prior to class, leading and engaging in thoughtful classroom discussion of the content matter, and actively participating in all group, peer and in-class exercises. Please come to class with any coffee, water, etc. that you may need during the class session. There will be a scheduled break, typically after the first hour of class.

VII. WASHINGTON UNIVERSITY ACADEMIC SUPPORT POLICIES

**Accommodations based upon sexual assault:** The University is committed to offering reasonable academic accommodations to students who are victims of sexual assault. Students are eligible for accommodation regardless of whether they seek criminal or disciplinary action. Depending on the specific nature of the allegation, such measures may include but are not limited to: implementation of a no-contact order, course/classroom assignment changes, and other academic support services and accommodations. If you need to request such accommodations, please direct your request to Kim Webb (kim_webb@wustl.edu), Director of the Relationship and Sexual Violence Prevention Center. Ms. Webb is a confidential resource; however, requests for accommodations will be shared with the appropriate University administration and faculty. The University will maintain as confidential any accommodations or protective measures provided to an individual student so long as it does not impair the ability to provide such measures.

If a student comes to me to discuss or disclose an instance of sexual assault, sex discrimination, sexual harassment, dating violence, domestic violence or stalking, or if I otherwise observe or become aware of such an allegation, I will keep the information as private as I can, but as a faculty member of Washington University, I am required to immediately report it to my Department Chair or Dean or directly to Ms. Jessica Kennedy, the University’s Title IX Coordinator. If you would like to speak with the Title IX Coordinator directly, Ms. Kennedy can be reached at (314) 935-3118, jwkenndey@wustl.edu, or by visiting her office in the Women’s Building. Additionally, you can report incidents or complaints to Tamara King, Associate Dean for Students and Director of Student Conduct, or by contacting WUPD at (314) 935-5555 or your local law enforcement agency. You can also speak confidentially and learn more about available resources at the Relationship and Sexual Violence Prevention Center by calling (314) 935-8761 or visiting the 4th floor of Seigle Hall.

**Bias Reporting:** The University has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of bias, prejudice or discrimination against a student can report their experiences to the University’s Bias Report and Support System (BRSS) team. See: brss.wustl.edu

**Mental Health:** Mental Health Services’ professional staff members work with students to resolve personal and interpersonal difficulties, many of which can affect the academic experience. These include conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression. See: shs.wustl.edu/MentalHealth.

**Special Needs:** If you have a disability or impairment that requires an accommodation, please contact the Washington University Disability Student Services at Cornerstone: The Learning Center, Voice/TTY: 935-5970, FAX, 935-7559. After having contacted them, please contact the instructors as directed.
English as a Second Language: If English is your second language, and you may need special assistance in lectures, reading assignments, etc. please seek assistance from the English language programs at the Office for International Students and Scholars and notify your instructors as directed. The services of the University Writing Center may be helpful to all graduate students as well.

VIII. GRADING CRITERIA (Criteria for individual assignments will be provided in class). See end of syllabus for the list of assignments and due dates.

Grading Scale: A letter grading system is used for attendance/class participation and final grading in this course. Passing grades may be qualified by a plus or minus sign. Individual assignments are assigned points based on grading criteria for those assignments.

**Grading Scale:**
A (Outstanding): The quality of work in this instance is distinctly superior; 95.0-100 % (A); 90.0-94.99% (A-);

B (Good): Performance is fully satisfactory and represents the academic attainment in the course expected of promising candidates for a graduate degree; 88.0-89.99%;(B+); 85.0-87.99% (B); 80.00-84.99% (B-);

C (Conditional): The quality of performance in this instance falls short of that which is regarded as satisfactory at the graduate level. 78.0-79.99% (C+); 75.00-77.99% (C); 70.0-74.99% (C-);

F (Failure): Students receiving failing grades in required courses will have to repeat the course provided that it is their advisor’s judgment that their continuation in the School is desirable. Below 70.00% (F).

Class Participation (10%)

Short Assignments (4%) - Short assignments are listed in the outline.

Final Project (38%) – DUE DECEMBER 12TH

**Final Project:**
The final assignment is to complete a formalized research design (essentially a research proposal) for a study in your area of interest. THIS PROPOSAL MUST DEAL WITH A SUBJECT MATTER AND DESIGN APPROPRIATE TO THE CLASS. Policy analyses, historical studies or other forms of research not directly related to methods taught in the class are not permitted.

**Outline for research proposal**
The study will not actually be conducted but must be realistic enough to potentially be conducted during a reasonable time frame. Ideally, the proposal could be submitted as a proposal to an annual conference. The entire proposal must conform to APA style (6th ed.).
Introductory section: Title Page, Abstract

Main Body
I. Problem to be investigated
   A. Purpose of the study (including assumptions)
   B. Justification and importance of the study (practical and theoretical significance)
   C. Research questions, hypotheses, and propositions
   D. Definition of terms
   E. Brief overview of study

II. Background and review of related literature
   A. Theoretical framework, if appropriate
   B. Studies directly related
   C. Studies tangentially related

III. Procedures
   A. Description of the research design, methodology, and variables
   B. Description of the sample (number and types of participants, describe sampling procedure)
   C. Description of instruments used (scoring procedures; reliability; validity)
   D. Explanation of the procedures followed (the what, when, where, and how of the study)
   E. Discussion of internal validity
   F. Discussion of external validity
   G. Description and justification of the data analysis methods (e.g., statistical techniques for quantitative studies and data reduction strategies for qualitative studies)
   H. Address potential ethical and IRB issues in the execution of the study

IV. Findings
   Description of findings pertinent to each of the research questions, hypotheses, and propositions stated

V. Summary and conclusions
   A. Brief summary of the research question being investigated, the procedures employed, and the results obtained
   B. Discussion of the implications of the findings—their meaning and significance
   C. Limitations—unresolved problems and weaknesses
   D. Suggestions for further research

References, Appendixes

*In addition to the outline, please consider the gaps in the literature (race/ethnicity, SES, gender, LGBTQI, methodological issues/concerns, etc.).

The final proposal is due on Wednesday, December 12, 2018. Please bring a hard copy to class. All readings and assignments are due at the beginning of the class session for which they are listed unless otherwise noted.
Human Subjects On-line (CITI) Training (required of all incoming Brown School doctoral students since Fall 2013): The main purpose of this assignment is to gain an overview of important historical and current issues in the protection of human research subjects. Review training modules and complete the on-line test module for the Danforth Campus. This assignment typically takes about four hours to complete. The system allows you to stop your session and return at a later time to the place where you left off, however you must follow the on-line instructions carefully to avoid losing stored information. Completing this assignment insures that you meet the minimum Human Subjects education required for human subjects contact for students involved in research projects on the Danforth campus. Note that you may take the Medical School version of this training if you anticipate being involved in projects with Medical School faculty as key personnel for the project. Everyone should upload their full completion certificate (this is automatically generated by the system).

You should be able to access the online training using HRPO’s instructions - http://hrpo.wustl.edu/education/human-subjects-education/ and their WUSTL Key. This link includes very detailed instructions with screenshots that should walk people through the necessary steps.

Instructions for printing/saving the completion certificate may be accessed here: http://hrpohome.wustl.edu/study_team/CITI/Printing_Your_CITI_Certificate.pdf. If anyone has difficulty accessing the training then they should contact the WU Systems Helpdesk at (314)935-5707.

IX. COURSE OUTLINE

FOUNDATIONS OF EMPIRICAL RESEARCH

WEEK 1: (8/28) Chapter 1: Scientific Approach
Chapter 2: Conceptual Foundation of Research

Assignment due by 9/4:
Complete online CITI training

*Additional Readings on Canvas

WEEK 2: (9/4) Chapter 3: Elements of Research
Chapter 4: Ethics in Social Science Research

*Additional Readings on Canvas

Assignments due this week:
Students will define an area of interest. This will be about one page long (single spaced) and will include the following:
1. Clear articulation of Area of Interest including single summary sentence.
2. Discussion of why it is sufficiently narrow to serve as a research focus.
3. Description of relevance
4. Description of importance of area of interest
5. Your initial ideas regarding how feasible it is to do research this area.

DESIGN AND STRUCTURE OF RESEARCH

WEEK 3: (9/11)  Chapter 5: Research Designs: Experiments

*Additional Readings on Canvas

WEEK 4:  (9/18)  Chapter 6: Research Designs: Cross-Sectional and Quasi-Experimental Designs

Assignment due this week:
Find a true or quasi-experimental design in your area of study. Critique it. Two pages.
Find a non-experimental design in your area of study. Critique it. Two pages.

WEEK 5:  (9/25)  Chapter 7: Measurement
Measurement in Diverse Populations (e.g., Race & Ethnicity, SES, & LGBTQI, – Theory, Concepts, & Measurement Issues)

*Additional Readings on Canvas

Assignment due this week:
Find 15 articles/book chapters/whatever. These should include at least three conceptual/theoretical, at least two review and at least ten empirical articles. In addition, you must bring the articles in their entirety for use during class. You must also have read the articles and be familiar with them.

Review of literature finding techniques, successes and failures. Review of both key studies highlighting ethical issues and review of codes of ethics.

Class discussion on retrieved literature. Issues may well include:
1. What questions are being asked in my area?
2. What populations have been studied at what level?
3. What constructs or variables have been looked at?
4. What instruments or measures have been used?
5. What theories exist to tell me how to look at my data and predict relationships which I might find?
6. What kinds of designs (experimental, correlational, etc…) are used in my area?
7. What are the main empirical findings?
8. What question should be asked next in my area?
WEEK 6: (10/02)  Chapter 8: Sampling and Sample Designs
Designs and Challenges in Diverse Populations
Response Rates, Undercounts, & Missing Data

*Additional Readings on Canvas

Your Conceptual Framework
This week will feature the very difficult issue of how we begin to formalize our conceptual framework. This is because I expect you to put a great deal of work into trying to nail down your conceptual framework.

Assignments due this week:
(1) Describe the conceptual framework for your research.
(2) List the Independent, Control and Dependent variables you will use. Be prepared to justify each.
(3) Draw your conceptual framework as shown in the readings under “Drawing Models.”
We will help each other review our assignments and try to draw out our conceptual frameworks graphically.

DATA COLLECTION

Specifying Aims, Questions and Hypotheses
We will move from our conceptual framework to specified aims, questions and hypotheses.

WEEK 7: (10/9)  Chapter 9: Observational Methods
*Additional Readings on Canvas

Assignments due this week:
(1) **Redo** and formalize the description of your conceptual framework. If you have decided to do something radically different, that’s fine. Add description of your research aim, question(s) and hypotheses.
(2) Find twelve more articles or similar sources (maximum of three sources which are only available online – online journals do not count here, since they are also available in hard copy). We will review your conceptual framework assignment.

WEEK 8: (10/16)  Chapter 10: Survey Research
Chapter 11: Questionnaire Construction
Methodological Issues in Quantitative Research on Diverse Populations
Data Collection in Diverse Populations
Beyond the Black and White Paradigm

*Additional Readings on Canvas

Assignments due this week:
(1) Using half a page or less, outline a sampling strategy for your project.
(2) Using half a page or less, outline the manner of control you will use in your project.

WEEK 9: (10/23) Chapter 12: Qualitative Research

*Additional Readings on Canvas

**Assignment due this week:**
Turn in a current description of your project including all elements covered in the class so far. Two page maximum.

WEEK 10: (10/30) Chapter 13: Secondary Data Analysis and Sources

*Additional Readings on Canvas

**Assignment due this week:**
1. Find a standardized instrument and bring it in. Do a show and tell, describing what it is for, how it is used and what you think of it.
2. Select an article which you believe has serious shortcomings in internal or external validity. Bring it to class and be prepared to discuss it.
3. Summarize your design in three pages, including all key concepts from course.

DATA PROCSESSING AND ANALYSIS

WEEK 11: (11/6) Chapter 14: Data Preparation and Analysis

*Additional Readings on Canvas

WEEK 12: (11/13) Chapter 15: The Univariate Distribution

*Additional Readings on Canvas

(11/21) - NO CLASS – Thanksgiving Break

WEEK 13: (11/20) Chapter 16: Bivariate Analysis

*Additional Readings on Canvas

WEEK 14: (12/4) Chapter 17: Control, Elaboration, and Multivariate Analysis (*)
Chapter 18: Index Construction and Scaling Methods (*)
Chapter 19: Inferences (*)
*Select portions of text will be reviewed in these chapters.

WEEK 15: (12/11)  Publications: How to get published

*READINGS WILL BE ASSIGNED

*FINAL PAPER DUE AT START OF CLASS SESSION