1 Course Description

This course is designed to provide an opportunity for students to gain hands-on experience in doing social science research with the skills they acquired in their Quantitative Social Analysis (QSA) methods courses. Students will choose a topic of their interest, locate relevant data set, identify appropriate methods, carry out analysis, and report their findings. After completing this course, they will get better prepared for their QSA Capstone Project.

Students may work in groups. Each group will consist of 2-3 people. For a group project to be approved by the instructor, it must be more ambitious than an individual project, with expectations set according to the size of the group. The roles of group members need to be specified in the proposal, and the contributions to the final project need to be documented in the final report.

The work done for the project should be above and beyond any work done for the QSA topical elective courses. Any work that is going to be submitted or has been submitted for credit in another course should NOT be submitted for the credit of this course.

The class will meet on an occasional basis. A detailed schedule can be found at the end of this syllabus. At these meetings, students will be required to present progress on their projects and participate in discussions of other students’ projects.

2 Prerequisite

SOSC 2400. For QSA students only.

3 Project

You need to identify two candidate research topics for the prospective Capstone Project and conduct either of the following two types of projects:

1) Literature review:
   - Conduct literature review for each of the candidate topics.
   - The literature to be covered need to use quantitative data analysis.
   - The main objective is to convince readers the importance your research topics. Thus, only focus on the literature that is directly related to your topics, or more precisely, to the keywords of your topics.
To review the existing studies, you need to summarize their main hypotheses, what data are used to test these hypotheses, what quantitative methods are employed to address the empirical challenges, and what the main findings are. Moreover, you had better discuss how these studies speak to each other.

You need to specify how your proposed research differs from previous studies and what contributions you can make to the literature.

It’s not acceptable to contain merely a series of paraphrases or summaries while lacking the analysis that helps to show why it is relevant to your topic.

2) Data exploration:

- For each candidate research topic, explore a variety of datasets potentially suitable for addressing it.
- You may find it much easier to work with a well-documented dataset that is publicly available and ready to be downloaded. However, you are also welcome to construct your own dataset.
- You need to evaluate the suitability of the data to your topic in terms of sample size, time frame, availability and adequacy of variables, and so on. Preliminary data analysis is also needed. Try to apply basic analytical techniques that you learned in your methods courses to each of your datasets.
- It must include a description of the steps taken as part of the analysis, including the statistical package used, the code or scripts used to transform the data, and the description of how you prepared your dataset and produced the tables and figures, among other things.
- Your tables and figures should be visually appealing and appropriately titled and labeled, with appropriately chosen axis ranges, symbols, and color schemes.

You may also opt to do both literature review and data exploration. In any case, however, it should not repeat anything you have done in a previous 3700 offering or in any of your methods classes.

4 Grading: P/F

To receive a “Pass” grade, students must complete all the following components for this course.

The project will be evaluated regarding merits in design, analysis and interpretation. Feedback will be given regarding prospects for development into a Capstone Project.

4.1 Class Participation

Attendance at all scheduled meetings (see “Schedule” for specific dates) is required. You are also expected to actively participate in the discussion and provide comments and feedback to other students in class.

4.2 Work Plan

The work plan should briefly describe your topic, explain why the topic is important, and specify the data and methods you are going to use.

If you are doing a group project, please indicate the names of all your group members and division of work.
4.3 Progress Reports ($\times 2$)

In order to better organize your ideas and build up your research experience, please keep a diary of your work on the project. In it, you can record all the related activities, such as the exploration of literature and data, downloading and processing of data, and analyzing data. Some failed attempts, such as the data that you later decided not to use and the analysis that finally didn’t work out, should also be included. In sum, the diary should indicate all the efforts you have made on the project, including those that cannot be reflected in the final report.

Each individual/group is required to submit two brief reports based on the diary (see "Schedule" for the deadlines). The reports serve to update the instructor on the progress of your project.

4.4 Final Output

The final output should summarize the topic and findings of your project. It is not expected to be a full-fledged research paper. The key is to demonstrate that you have mastered both the preparation and analysis of data and the interpretation and presentation of your findings.

For group project, you must specify the contributions each member has made.

5 Schedule

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<thead>
<tr>
<th>Week</th>
<th>Presentation Topic</th>
<th>Meeting</th>
<th>Submission</th>
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<tbody>
<tr>
<td>1 (Sep 5)</td>
<td>Course Introduction*</td>
<td>Yes</td>
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<td>3 (Sep 19)</td>
<td>Work Plan</td>
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<td>Work Plan &amp; Slides due on Sep 18</td>
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<td>8 (Oct 24)</td>
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* Lecture given by instructor.