Capstone: Applied Research
2017-18
CAP-GP 3148-9

Syllabus

Mondays 6:45-8:25pm
50 Fifth Avenue, C03

Professor
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Puck Building, Room 3004
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COURSE SUMMARY

Capstone is learning in action. Part of Wagner’s core curriculum, it provides students with both a critical learning experience and an opportunity to perform a public service. Over the course of an academic year, students in the Applied Research track will work in teams to identify and address an important policy question in the field of their choice. Students will design the approach, conduct the data collection and analysis, and present findings, both orally and in writing.

In architecture, the capstone is the crowning piece of an arch, the center stone that holds the arch together, giving it shape and strength. Wagner’s Capstone program plays a similar role, by building on students’ previous coursework and expertise, while also enhancing student learning on policy and management issues, key process skills and research skills. Capstone requires students to interweave their learning in all these areas, and to do so in real time, in an unpredictable, complex real world environment. Although divided into teams, the class will work as a learning community dedicated to the success of all the projects.

LEARNING OBJECTIVES

CONTENT
Students should demonstrate the ability to:

- understand the policy context for their project;
- be familiar with relevant specialized vocabularies;
- draw on critical research related to their content area;
- connect their project with previous coursework in their broader program and specialization.
PROCESS

Overall, students should demonstrate a capacity for flexibility and resilience, as shown by adapting to changing and complex circumstances, balancing competing demands, accepting uncertainty and ambiguity, and knowing when to consult with their Capstone instructor.

1. Project Management
Students should demonstrate the ability to:
- frame and refine the research question;
- develop a schedule with the instructor, including timeline and deliverables;
- develop an internal project workplan;
- meet deadlines and monitor their progress against the workplan;
- revise the workplan as necessary.

2. Team Management
Students should demonstrate the ability to:
- diagnose and attend to interpersonal dynamics;
- define roles and useful division of labor;
- manage assignments and accountability;
- advocate points of view and negotiate differences of opinion;
- solicit and offer feedback;
- appreciate and learn from cultural and other differences.

RESEARCH

Students should demonstrate the ability to:
- identify and synthesize existing research relevant to the project;
- identify and implement appropriate quantitative and/or qualitative data gathering methods;
- identify and implement appropriate data analysis procedures;
- determine findings;
- develop useful recommendations and/or tools and resources based on findings.

COMMUNICATION

Students should demonstrate the ability to:
- synthesize and summarize large amounts of data and information;
- prepare clear and well-argued written deliverables tailored to the policy audience;
- prepare clear and well-argued verbal presentations tailored to the policy audience.

COURSE REQUIREMENTS

This is a team-based course. I will ask you for your preferences, but – just to be very clear – I will create the teams based not only on your preferences, but on your previous coursework, work and life experience, other expertise, and team size. Teams are comprised of 3-5 students.

The class will involve presentations from the instructor, possible guest speakers, class discussion and team meetings. Course requirements include:
- enrollment in both semesters;
o attendance and participation in class activities and team meetings, both inside and outside of class;
  o completion of assignments on time;
  o participation in preparation and presentation of findings.

We will not meet as a full class every week, especially in the spring semester, where you will be working primarily within your teams. However, you should always have Monday 6:45-8:25pm open to meet with me or your team.

EVALUATION and GRADING

Students will receive 1.5 credits for the fall semester and 1.5 for the spring semester. At the end of the first semester, students will receive a grade of “IP” (Incomplete Pass) to reflect the “work in progress” nature of the year long project. I will assign final grades at the end of the second semester.

Grades will be allotted to individuals, not to the team as a whole. That is, team members may receive different grades if I feel that is warranted. I will make this judgment based both on my assessment of students’ contribution and learning and on the assessments you give each other as part of the evaluation process at the end of the first and second semesters.

Students will be graded on both the products they deliver to their clients and evidence of progressive learning throughout the course, based on the Learning Objectives. 60% is based on work products identified in the milestones as well as any interim deliverables. 40% is based on evidence of the individual student’s learning during the course through participation in the team’s work and class activities, his/her ability to act on peer and faculty feedback; individual and team preparation; and end-of-semester faculty, peer and self evaluations.

COURSE DELIVERABLES

The course has a series of milestones – both activities and products -- that will serve as interim work products. The written portion of each deliverable is due to me in class, on the same day as the oral presentation. Oral presentations should be professional and make use of PowerPoint or another presentation program.

Fall Semester

Project Idea Presentation
A short presentation (10-15 minutes) on 2-3 potential policy research questions for the team.
• Gives the policy context
• Clearly states the research question (Does X influence Y and why/how?)
• Brainstorms possible data sources/strategies
• Discusses potential contribution or significance of the project

A short memo with more details (2-3 pages)
**Research Prospectus**
A full presentation (20-30 minutes) on a detailed research plan for your team’s chosen project.
- Research question and policy context: What is your hypothesis? Why is the question important? Do you have a theory?
- Literature review: How does it add to or challenge what we already know?
- Research design: What are the empirical challenges that your project faces? What methods do you plan to use? What cases? Why?
- Data: Describe the dataset and how your main variables will be operationalized.
- Analysis plan: Describe research steps and general timeline

A prospectus memo (about 5 pages), written as a team.

**Team Charter** (1-2 pages)
- Outline specific tools/guidelines for team communication
- Outline strategies for conflict resolution
- All members should sign the document, which should be submitted to me.

**Work Plan** (1-2 pages)
- Identify team members who will take primary responsibility for certain tasks, such as the literature review, data cleaning and preliminary analyses, drafting of sections, etc. As a team, you should discuss each of your strengths and skill sets.
- Provide a detailed timeline for the project and deliverables, with internal team deadlines.

**Progress Report and Presentation**
A short presentation (10-15 minutes) on research progress.
- Summarize progress in each task area
- Findings from initial analyses
- Challenges so far

A Progress Report (3-5 pages) of initial findings. This should serve as the blueprint or outline of your final report.

**Spring Semester**

**Interim Report**
A presentation (15-20 minutes) on the project’s progress
- Presentation should loosely follow the outline of: research question/policy context, theory/literature review, research design/data/methods, and findings. This should serve as practice for the final presentation.
- Presentation of findings so far, with tables and graphs
- Future steps

Interim Report (5-10 pages).
Final Report
A professional presentation (20-30 minutes) of the Final Report
• Treat this as practice for the Capstone Expo.

Final Report (usually around 20 pages)

COURSE SCHEDULE

Twice in the year, during regular course hours, we require all students to attend a Capstone skills training session instead of class. These dates are:

1) October 16, 2017: Project Management
2) March 5, 2018: Presentation Skills Training

Capstone Expo will be on Tuesday, May 8, 2018.

The list of weeks and topics that follows is preliminary and subject to change. Students should expect to meet weekly as a class or team unless agreed in class.

Fall Semester

September 11 Course introduction. Interest and skills questionnaire.

September 18 Team Assignments. Discussion of what makes a good research project.

Required Readings:
• “What is Research Design?”

September 25 Cancelled

October 2 Lecture: Practical steps for applied research
Lecture notes will be posted on course site.

October 9 Fall Break

October 16 All Capstone: Project Management

October 23 Project Idea Presentation and Memo

October 30 Lecture: Practical steps for applied research, part II and Team Charter
November 6  Workshop and **Work Plan**

November 13  **Prospectus Presentation and Memo**

November 20  Technical skills session: How to approach survey data (Joint guest lecture)

November 27  Technical skills session: R tutorial

December 4  Team meetings

December 11  Team meetings

December 12  **Progress Report Presentation and Memo**
(Tuesday)

**Spring Semester**

January 22  Team meetings

January 29  No class

February 5  No class

February 12  Workshop: Interpreting and visualizing data

February 19  Team meetings

February 26  **Interim Report Presentations and Memo**

March 5  All Capstone: Presentation Skills Training

March 12  **Spring Recess**

March 19  Team meetings

March 26  No class

April 2  No class

April 9  Optional workshop: Roundtable

April 16  Optional workshop: Roundtable

April 23  Team meetings

April 30  **Final Report Presentations and Memo**
May 7  No class

May 8  Capstone Expo
(Tuesday)

RESOURCES

For questions in data management, data analysis (Stata, SPSS, R), or GIS mapping, students should contact the NYU Data Service Studio located on the 6th floor of the Bobst Library. Consultation is available via email (data.service@nyu.edu), phone (212-998-3434), or on a walk-in basis – they are very responsive and helpful.

Also, the following website (http://guides.nyu.edu/wagner) has a list of resources that Andrew Battista, the Wagner liaison to NYU libraries, has put together that is also particularly helpful for literature review.