

Course Project Assignment #1

Overview For this assignment, you will write a project proposal. Your proposal will include

- a question or hypothesis you want to study; and
- ideas on how to gather data relevant to your question or hypothesis.

You are very likely to refine the details as you get further into your project.

Specific requirements Submit a proposal of no more than one page by Monday, March 3. Your proposal should contain a clear and specific question or hypothesis that can be summarized in one sentence. The population for your question or hypothesis should be clearly defined. You should also outline an experimental or observational study to address your question or hypothesis.

Suggestions

- Pick an interesting topic. Consider challenging your own assumptions about the world. Think of little things you assume to be true without having solid evidence.
- Pick a topic that is manageable. You may find some tension in finding something that is both interesting and manageable. Err on the side of manageable. Your project will be more rewarding if you can reach solid conclusions about something smaller than if you fail to reach conclusions about something larger.
- Here's some types of question you might ask:
 - “How does A compare to B?” For example, you could compare textbook prices at the UPS bookstore with textbook prices at Amazon.com. Many questions of this type will strike a nice balance between being interesting and manageable.
 - “What is the value of A?” For example, you could try to determine the average arm span of UPS students.
 - “Is A associated with B?” For example, you could examine any association between arm span and height for students in your residence hall. We will be covering inference methods relevant to this type of question late in the semester.
- You might want to focus on your immediate surroundings. Gathering data on or near campus will be much easier than gathering data more broadly. Do a simple random sample of students in your residence hall will be easier than a simple random sample of all UPS students or all Tacoma residents.

Looking ahead Here's a rough outline of project steps with tentative deadlines:

- Project topic proposal due Monday, March 3.
- Study design proposal due Friday, March 14.
- Pilot study progress report due Monday, April 7.
- Descriptive statistics report on your full data set due Monday, April 28.
- Final report due Wednesday, May 14 (at scheduled final exam time).