

Reminder The project in this course is optional. However, should you decide to do a project, it will be mandatory and become a large component of your grade (equivalent to a mid-term examination). You are allowed to work alone or in pairs.

Goals: The main objective of the project is to study in-depth an additional topic involving probability or its applications that relates to your personal interests. This will be accomplished both through further readings and some active component.

Topics: The topic should encompass the equivalent of a week's worth of course materials or more. There are several suggestions for possible topics on the course website. In addition, I strongly encourage you to look for potential topics from within your broader academic interests or life experience. As an example, if you are interested in epidemiology, you might choose to study the role of Markov chains in modeling the spread of disease.

Finished Product: A completed project will consist of at least two parts. One will be an expository paper (4 to 6 pages) written to explain what you did and what you have learned to your classmates. The other parts will reflect the active component. This can take many forms: R programs modeling your subject, solving exercises from a text book, applying your topic directly, collecting and analyzing data or any other form that we agree is appropriate. Your classmates will be reading these projects and examining your work.

Schedule: In addition to declaring your intent and picking a topic, there are several intermediate steps involved in the project:

1. *Project outline* (due Wednesday, May 7): A two paragraph outline stating what you intend to accomplish with your project. This should include a description of your topic, a proposed form for your active component and reading list that contains necessary background.
2. *Meeting 1* (completed by Tuesday, May 13): Meet with me to discuss your outline. This should not take long.
3. *Meeting 2* (completed by Friday, May 23): Meet with me to discuss your progress. By this point, you should have a fair degree of mastery of your material, worked on your active component and a have clear sense of potential difficulties in your work. At this time, further revisions to your project outline can be made.
4. *Turn in project* (due Wednesday, May 28): The completed project is due the last day of class.