

## BBPHD 8110 Research Project Guidelines

The goal is to model preferences and behavior of a chosen situation of interest. Pick a topic of interest to you in which agents (people, firms, etc.) make decisions. The model may be static (one period) or dynamic (multiple period); it should include strategic interactions among agents as the primary focus of this course is game theory; the model may involve uncertainty. The inclusion of these factors depends on the situation you are modeling.

Items that should be included in the paper:

1. Discuss the specific situation(s) that you are attempting to model.
2. An explanation of how you believe that individuals make decisions when faced with your chosen situation. This step should help guide you as to how to model preferences and behavior.
3. Present a formal model of preferences and behavior. It is best to attempt to determine the important components of your specific situation and ensure that your model captures these important features.
4. The model should make predictions about behavior (that is the goal of a model after all). Explain how you would test the model (do predictions match actual behavior). You do not need to actually test the model (so you do not need any data).
5. References to other models in the literature to distinguish your model from currently existing ones. As the Varian article suggests, do not do this first. Work on stripping your problem down to its essential elements and model those first, then go to the literature. The goal is to work on your model building skills and not how well you can use the internet to find articles on the topic.

Papers should be typed – if you are going to use mathematics in your research you may want to invest some time in learning LaTeX or Overleaf or another word processing package that allows one to easily incorporate mathematics into text. Alternatively, Microsoft Word has improved its mathematics editor and you may wish to use it. The length of the paper should be enough to cover all of the relevant items. Many times grad students feel that longer papers are better, but editors of academic journals regularly ask authors to cut pages from their submitted papers before they will accept them. You should keep what is important in the paper and minimize extraneous language.

Grading:

Grades are based upon how well you address the five points listed above. Having a mathematically rigorous model helps, but an explanation of why the mathematics are useful for your model is also important.

Due Date:

The completed paper is due by the end of our scheduled final exam period, which is likely on Thursday May 11<sup>th</sup>. You can turn it in before then if you would like. For those of you taking BPHD Econometrics II, I believe you will also be asked to do a paper/project in that class. It may be helpful to consider modeling the behavior that you are analyzing in the empirical project for that course. My recommendation for any class project is to choose a topic of interest to you that you might consider for your dissertation or thesis project so that you can acquire knowledge on that topic while working on the project.