

Final Project Information

Final Project Ideas Due: You should post final project ideas to myCourses by November 10, 2022. About a paragraph or two should suffice. If you would like to discuss with me earlier, you are free to do so.

Final Paper Due: You should aim for a project that you think you could complete by the last day of class, December 1, 2022. I will accept papers by this date, but later submission up until December 8, 2022 is possible.

Final Project Ideas:

The guidelines for types of projects is still in line with the syllabus. For example, from the syllabus:

- Manually estimating a model that replicates extant software and is not already covered in class
- Design and conducting a simulation study
- Implementation of a technique that exists in the literature but is not currently in mainstream software
- An idea that does something not attempted in the literature for a particular model

The difficulty of the final project should be slightly more than one of the assignments. The scope can be scaled back such that the research idea is not necessarily publishable, however. In addition, the model(s) used do not necessarily need to be very complicated models. The model(s) used need not be in your primary area of research either. Development of fundamental skills/theory is more important at this stage. Those skills will eventually be transferrable (as will theory be generalizable) to more complex models.

Group vs Individual Work:

The point in posting project ideas to myCourses is to attempt to match you with others in the class. You may work in groups of 2-3. If any of you have a strong preference to work individually, it may be possible. Please discuss any concerns you have regarding this with the instructor. If you see a project idea from someone else that you have some interest, please discuss it directly with that person.

Final Project Paper

I require some tangible written product for grading purposes that represents progress towards the project idea. It should be written in formal language, such as that found in APA style. The details of the structure/organization is up to you. I do require elements that do the following:

- a) Orient the reader to the purpose of the project;
- b) Details of analyses or coding conducted, with some technical details;
- c) Some results, such as simulation study results, comparison of something manually implemented vs extant software, or results of some other technique on example data;
- d) Reflection on parts (b) and (c), which could entail future directions, possible improvements, new questions you had, whether results made sense with your expectation, and so on;
- e) An Appendix with some code that could be followed; if your simulation study is huge, I do not necessarily need all of the code. Likewise, if you are using code you have from a package you are writing, some reference to the package is possible. If any of you have any unique software licensing issues that may conflict with this requirement, please discuss with me.

Aim for a final paper between 6-12 pages of text with the typical 1 inch margins, double-spaced text, and 12 point font. Additional pages of Tables, Figures, references are possible. Tables and Figures are optional, especially if it helps with exposition of what was examined or helps with results, which may depend on the project. The range of pages is intended to accommodate the possibility that the bulk of the work for some projects may go into coding / difficult math, which may entail less text.