

SCHEDULE: (subject to change)

Week	Topic	Goals	Assignment	Faculty
1-2	Introduction/Assignment of topics, planning schedule.	Review the concepts of the course, assign student groups, review topics for the analysis and the data sources.	Conduct a literature review of the topic and begin a preliminary concept proposal and conceptual model of the analysis.	Alexander
3	Preparing analysis plan	Develop a roadmap for the analysis.	Finalize concept proposal with hypotheses and specific aims. Refine conceptual model and develop an initial causal model for analysis based on prior knowledge using a directed acyclic graph.	Alexander
4-5	Introduction to database and coding of variables. Review of data exploration. Documentation	Become familiar with data. Understand the distributions of the variables in the causal model.	Develop descriptive tables or plots of initial variables of interest in the causal model. Record observations of the relationships of the covariates. How does this fit with your causal model. How should you adjust your causal model?	Alexander
6	What to do about missing and sparse data.	Understand problems of and strategies for handling missing data or sparse data.	Evaluate potential effects of sparse data. Write draft of Introduction paper	Alexander
7	What are the data telling you?	Be able to evaluate the assumptions in the a priori causal model with the available data.	Write draft of Methods section for the paper. Make adjustments to causal model and record observations about covariate distributions	All
8	Initial analysis Steps to writing a paper	Be able to conduct an initial causal analysis with the data guided by the causal model and evaluating how well the model is fitting.	Begin initial analysis of data. Revise Methods section.	Alexander
9-10	Refining the analysis	Understand approaches to recoding the elements of the model and evaluating how that changes the assumptions in your models.	Revise the initial analyses with some changes to the data. Record effects and how these different assumptions change the interpretation of the results. Prepare 'final' tables' Write the Results section of the paper.	Alexander
11-12	Review of progress		Write the Discussion Section	All
13-14	Review of progress Presentation techniques		Prepare presentations.	All Alexander
15	Presentations		Review/critique other student papers	All
Final			Submit final paper.	