

Research Colloquium

AAE 780

Spring 2023

1 Preliminaries

Course schedule: Wednesday 9:30-12:00, 113 Taylor Hall (Kristjanson Room)

Professor Laura Schechter, 334 Taylor Hall.

Office Hours: By appointment.

Please read through this syllabus in full. It contains much detailed relevant information, and reading through it should answer many of your questions.

2 Course description

This colloquium was created to help reduce dwell time for PhD students, who could benefit from support as they transition from course work and prelims to starting a dissertation. It is intended for AAE PhD students to develop their dissertation proposal. Students will receive feedback from the instructor, their advisor, and their peers. Course content includes developing research questions, literature search, economic modeling, testable hypotheses, econometric identification strategies, data management tips, and giving presentations. Peer review of weekly assignments will develop skill in critical analysis. A secondary goal of the seminar is for students to develop a cohort for subsequent feedback and support through dissertation writing and the job search. A dissertation proposal is the end deliverable.

3 Overarching Details

This course is intended to help you produce a proposal for the main paper in your dissertation. The focus will be on producing a proposal for an empirical paper. This course is required for AAE Ph.D. students in their third year and can count as a course towards your minor. We will have one preliminary meeting and one preliminary assignment in the fall semester, described below in more detail.

I expect you to come into the first day of class in the spring with your revised research question and elevator spiel. (The ‘elevator spiel’ is explained in more detail in the deliverable section.) I expect you to end the semester with a draft of the main paper proposed in your dissertation proposal. I also hope that you end the semester as a cohesive group of colleagues who can continue

to provide feedback for one another through writing your dissertations and through the job market experience. There will be a deliverable to be submitted every week of the class. Each deliverable is due *before* class on the day it is due, and should be submitted as a pdf (not a word document). Your proposal will be due on Monday May 8th. Grading will be based on all deliverables.

4 Some Recommended References

These two websites are filled with wonderful hints for how to conduct your academic career: “[Tips 4 Economists](#)” and “[Resources for PhD Students](#)”. I have also heard very good things about Marc Bellemare’s book “[Doing Economics: What You Should Have Learned in Grad School - But Didn’t](#)”.

Below are listed some useful books with good advice on how to conduct research and write. You are required to read some chapters from some of these books throughout the course, which are posted on the course website. However, you might find additional chapters of these books to be of interest.

- McCloskey, D. N. (2000). *Economical Writing*. Long Grove, IL: Waveland Press Inc.
- Silva, P. J. (2007). *How to Write a Lot: A Practical Guide to Productive Academic Writing*. Washington DC: American Psychological Association.
- Thomson, W. (2011). *A Guide for the Young Economist: Writing and Speaking Effectively about Economics*. Cambridge, MA: MIT Press.

5 Interactions with Your Advisor

There are seven deliverables you will need to send to your advisor in addition to submitting on Canvas. In the fall, you will have to send your research question and elevator spiel to both your advisor and me. In the spring, you will have to send a revised draft of your research question and elevator spiel, your word model, math model, identification strategy, literature review, and final proposal to both your advisor and me. The easiest way to do this is to send an email to your advisor with me on cc, and also to submit the assignment for me on Canvas. All submissions should be of pdfs, not word documents. You should also invite your advisor to the presentation you give at the end of the semester.

Your advisor is encouraged to send both of us comments on your deliverable. This serves both as a mechanism for students to get more feedback from their advisors, and to ensure that I am not giving you feedback which is in contradiction to the feedback of your advisor. To maximize communication and minimize misunderstandings, I will also send my comments to your advisor for each of these deliverables.

6 Fall Activities

This course is offered in the spring of each academic year. As mentioned above, the goal of this course is to help you complete a proposal for the main paper in your dissertation. One semester (actually only three and a half months) may sound like it is more than enough time to write one

paper proposal. But for those who do not enter the class with a clear vision of what this paper will be about and what data it will use, it ends up feeling extremely rushed.

Because this class is most useful at the stage when you have a clear vision of what the main paper in your dissertation will be, we will have one initial introductory meeting on November 16 at which we talk about the logistics of the course. By Friday December 16th, you will have to submit to both your advisor and me your research question and your elevator spiel (described in more detail under deliverables below). Both your advisor and I will give you comments on this document soon thereafter. This will give you time to work on the document before the first day of class when you must submit a revised version, at which point you will also recite your elevator spiel to the rest of the class.

7 Learning Objectives

In this course you can expect to learn how to:

- Give constructive peer feedback.
- Compose a proposal for the main paper of your dissertation.
- Produce a clear and professional proposal defense presentation.
- Summarize the main characteristics of the data and empirical strategy for the main paper of your dissertation proposal.

8 Course Outline

Every day of class you will have to email deliverables to some set of individuals. A description of each deliverable appears at the end of this document. Below each deliverable it tells you to whom you need to send the document. [P] means the professor (me), [A] means your advisor, and [G] means the other two students in your feedback group. Please cc me on your emails to anyone else. Some assignments also need to be uploaded on Canvas. Assignments are due before class on their due date in pdf format. There are three types of assignments which determine to whom you must send copies.

- Some assignments will only be submitted to me on Canvas. These assignments usually end up being inputs to a later stage of research and do not need to be read and commented on by many people.
- You will email some assignments to me (and also upload on Canvas), to your advisor, and to two of your classmates. There are four such assignments throughout the year, and these assignments are the major building blocks of the dissertation proposal. You will be paired in groups of three to comment on each other's work, and these groups will change across each of the four assignments. I will post the groups on Canvas.
- For the four assignments described in the previous bullet point, you will have to write comments on two of your classmates' work. You should send your comments to the classmate who wrote the assignment, in addition to sending a copy to me. These comments do not need to be uploaded in Canvas.

Because economists believe in incentives, each deliverable will be graded. That said, I don't want you to get stressed about grades. The important thing is that you start moving forward on doing great exciting research. Future employers do not care about your grades.

For most days of class, there is an assigned reading to be read before class. Some days these readings are required (denoted [Rq]) and some days the readings are recommended (denoted [Rc]). On many days we have outside speakers. It is always important that you come on time, but it is especially important on the days we have outside speakers to be respectful to them.

- Pre-class
 - Date: Dec 16
 - Deliverable: Version 1 of research question and elevator spiel
 - Send to: [P - email], [A - email].
- Week: 1
 - Date: Jan 25
 - Class Activity: Verbal sharing of research questions. *Presentation by Librarian: Google for Research Purposes*. Introduction to literature search.
 - Reading: [Rq] Davis, D. (2001), [Ph.D. Thesis Research: Where do I start?](#)
 - Deliverable: Version 2 of research question and elevator spiel.
 - Send to: [P - Canvas and email], [A - email].
- Week: 2
 - Date: Feb 1
 - Class Activity: Discussion of plagiarism. Word models.
 - Reading 1: [Rq, Section 3 only, pages 149-151] Fafchamps, M. (1992), [“Solidarity Networks in Preindustrial Societies: Rational Peasants with a Moral Economy,”](#) *Economic Development and Cultural Change* 41(1), 147-174.
 - Reading 2: [Rq, Sections 2 and 3 only, pages 136-141] Roy, A.D. (1951), [“Some Thoughts on the Distribution of Earnings,”](#) *Oxford Economic Papers* 3(2), 135-146.
 - Deliverable 1: Annotated bibliography with references from 10 good journals.
 - Send to: [P - Canvas].
 - Deliverable 2: Answers to word model questions.
 - Send to: [P - email only].
- Week: 3
 - Date: Feb 8
 - Class Activity: Math Models.
 - Reading: [Rq, pages 51-64 and 74-90] Thomson, Chapter 2, *Writing Papers. A Guide for the Young Economist*.
 - Deliverable: Word model.

- Send to: [P - Canvas and email], [A - email], [G - email].
- Week: 4
 - Date: Feb 15
 - Class Activity: Feedback on word models.
 - Reading: [Rq] Varian, H. R. (2009), [“How to Build an Economic Model in Your Spare Time”](#).
 - Deliverable 1: Comment on two other students’ word models.
 - Send to: [P - email], [G - email].
 - Deliverable 2: Find 3 papers with related models and write summaries.
 - Send to: [P - Canvas].
- Week: 5
 - Date: Feb 22
 - Class Activity: Identification I.
 - Reading: [Rq] Kennedy, P. E. (2002), [“Sinning in the Basement: What are the Rules? The Ten Commandments of Applied Econometrics,”](#) *Journal of Economic Surveys* 16(4), 569-589.
 - Deliverable: Basic math model.
 - Send to: [P - Canvas and email], [A - email], [G - email].
- Week: 6
 - Date: Mar 1
 - Class Activity: Feedback on math models.
 - Reading:
 - Deliverable: Comment on two other students’ math models.
 - Send to: [P - email], [G - email].
- Week: 7
 - Date: Mar 8
 - Class Activity: *Presentation by Research Data Services*: Data management essentials.
 - Reading: [Rq] Gentzkow, M. & Shapiro J.M. (2014), [Code and Data for the Social Sciences: A Practitioner’s Guide](#).
 - Reading: [Rc] IFPRI (2018), [A Guide to Data Cleaning Using Stata](#).
 - Reading: [Rc] Pollock, H.D., Chuang E., & Wykstra S. (2015), [IPA’s Best Practices for Data and Code Management](#).
 - Deliverable: Testable hypotheses.
 - Send to: [P - Canvas].

- SPRING BREAK!
- Week: 8
 - Date: Mar 22
 - Class Activity: Identification II.
 - Reading: [Rq] McCloskey, D. N. & Ziliak, S. T. (1996), [“The Standard Error of Regressions,”](#) *Journal of Economic Literature* 34, 97-114.
 - Deliverable: Data description and challenges to identification.
 - Send to: [P - Canvas].
- Week: 9
 - Date: Mar 29
 - Class Activity: *Presentation by Writing Center*: Writing Literature Reviews.
 - Reading 1: [Rq, pp 1-5] Taylor, C. (2022), [“Cicadian Rhythm: Insecticides, Infant Health, and Long-Term Outcomes,”](#) Recent job market paper.
 - Reading 2: [Rq, pp 1-7] Riaño, J.F. (2022), [“Bureaucratic Nepotism,”](#) Recent job market paper.
 - Reading 3: [Rq, pp 1-6] Wagner, K. (2021), [“Adaptation and Adverse Selection in Markets for Natural Disaster Insurance,”](#) Recent job market paper.
 - Reading 4: [Rq] Evans, D. (2020), [“How to Write the Introduction of Your Development Economics Paper,”](#) CGDev blog post.
 - Deliverable 1: Answer literature review questions.
 - Send to: [P - email].
 - Deliverable 2: Identification strategy.
 - Send to: [P - Canvas and email], [A - email], [G - email].
- Week: 10
 - Date: Apr 5
 - Class Activity: Feedback on identification strategies.
 - Reading: [Rc] McCloskey, Chapters 1-14. [Economic Writing](#).
 - Deliverable: Comment on two other students’ identification strategies.
 - Send to: [P - email], [G - email].
- Week: 11
 - Date: Apr 12
 - Class Activity: Discussion of publishing. *Presentation by IRB*: Human Subjects Q & A.
 - Reading: [Rc] McCloskey, Chapters 15-31. [Economic Writing](#).
 - Deliverable: Introduction and literature review.
 - Send to: [P - Canvas and email], [A - email], [G - email].

- Week: 12
 - Date: Apr 19
 - Class Activity: Feedback on introduction and lit review.
 - Reading: [Rq] Cochrane, J.H. (2005), [“Writing Tips for Ph.D. Students”](#).
 - Deliverable: Comment on two other students’ intros and lit reviews.
 - Send to: [P - email], [G - email].
- Week: 13
 - Date: Apr 26
 - Class Activity: How to give presentations.
 - Reading 1: [Rq] Bellemare, M. (2014), [22 Tips for Conference and Seminar Presentations](#).
 - Reading 2: [Rq] Schwabish, J.A. (2014), [“An Economist’s Guide to Visualizing Data,”](#) *Journal of Economic Perspectives* 28(1), 209-234.
 - Deliverable: None.
 - # of Copies: NA.
- Week: 14
 - Date: May 3 [If the class is especially large this year, we may have to schedule an additional date to complete all the presentations.]
 - Class Activity: Presentations.
 - Reading:
 - Deliverable: Slides.
 - Send to: Bring paper copies for everyone in class. Email to everyone in class plus your advisor.
- Monday May 8th: Dissertation proposal due. Send to: [P - Canvas and email], [A - email].

9 Description of Deliverables

- **Research Question and Elevator Spiel (5 points first time and 10 points second time):** The document should begin with your question, which should be written so as to have a yes/no answer and it should be quite specific. You must start your document with an actual question, and it must have a yes/no answer. And, the question can not be vague about the pre-supposed outcome. Many students tend to start by writing their question as: “Does policy X affect Y ?” But, this is not a fishing expedition. You need to have a hypothesis which you are testing. So, your question might instead be “Does policy X increase Y ?”

This should be followed by a write-up of your elevator spiel. An elevator spiel is what you would say if you went to the ASSA meetings and were in an elevator with the president of the AEA and he asked you what your research is about. It is an informal concise description of your research that would take around five minutes to speak and should be approximately

(just under) one page written. It should answer the following questions: what is your topic, what is your research question, why is it important and/or where does it fit into the literature, and how do you plan on answering it. You will hand one version in during the fall semester before the class begins, and a second revised version on the first day of class, where you will also speak your elevator spiel out-loud to your classmates. This is meant to be spoken so it should not contain footnotes or parenthetical citations. It should be written how you would feel comfortable talking with someone in an elevator.

- **Annotated Bibliography (10 points):** The annotated bibliography must reference 10 articles from ‘good’ economics journals. Write, *in your own words*, a description of approximately one paragraph about each article. You should state what the main point and finding of the article is. But, more importantly, you need to discuss how the article relates to your research. As a helpful reminder to me, please write your research question at the top of the document. I define a ‘good journal’ as one that is in the top 75 in the left-most column of Table 2 of [New Approaches to Ranking Economics Journals](#). You can also consider the four *AEJ* journals and the two now *JPE* journals and *JAERE* to be ‘good,’ although they are too new to have made it onto that ranking list. All NBER working papers are fair game to be considered ‘good’ as well.

I am strict about only counting articles from the places I mention above. Your final proposal may cite papers published in other disciplines, unpublished working papers, World Bank or government reports, etc. That is totally fine. But every student should be able to find at least ten relevant papers in good economics journals.

- **Answers to Word Model Questions (5 points):** You will read two short word-models. Please answer the following 6 questions about each word model (both Fafchamps and Roy) in words (not math): 1. What are the characteristics of the setting (those which are important from a theoretical perspective)? 2. Who are the actors? 3. What are the objective functions and choice variables? 4. What are the constraints? In other words, what is the “subject to” part of the maximization? 5. What are the frictions? Frictions are things that prevent the actors from achieving first best and include asymmetric information, credit constraints, limited commitment, taxes, transaction costs, and externalities. 6. How is the equilibrium determined?
- **Theoretical Model in Words (10 points):** The word model should describe in words, with no equations, the economic theory in your dissertation. By model I do not mean an econometric model, but rather a microeconomic theoretical model (or macroeconomic or trade, as the case may be). This word model should not include any discussion of the data you will be using nor should it include long descriptions of the background in reality. It should purely be a verbal description of the theoretical model you have in mind. It should include the same elements as above i) discussions of who the main actors are, ii) what the actors’ utility functions or production functions look like, iii) what they are maximizing and what are the choice variables, iv) what constraints they face the ‘subject to’ part of a model, v) if there is uncertainty how it enters the model, vi) what frictions are in the market, and vii) how equilibrium is solved.

This document should be in paragraph form, not just a list of answers to the above questions. The end goal is that it is something which can be inserted into a dissertation proposal. Please

do not add too many twists to this model. It should be simple enough that you will be able to convert it to an equation-based model in the next two weeks. It cannot contain all the complexities of the real world. Please write your research question at the top of the word model as a reminder to your classmates.

- **3 Papers with Related Models (5 points):** Find three papers that have models which will help you turn your word model into a math model. Write a short summary, *in your own words*, about the model in each paper and how the model in that paper will influence your own theoretical model. You do not need to talk about any empirical analysis this paper may contain. Your description should purely focus on the theoretical modeling.
- **Comments on Word Models of Two Classmates (10 points)**
- **Theoretical Model in Math (10 points):** Now you will convert your word model into a math model with equations. All the same elements included in the word model should be included here, but now you intersperse revised word model paragraphs with equations. The goal is not to write a new document; it is to build off of your word model and the feedback you received to formalize your word model. You may solve the model, but you do not have to. You do have to set up the maximization problem and discuss how you *will* solve it.

Again, there should be no discussion of econometrics or of data. This is purely the theory underpinning your dissertation. Even if theoretical innovation is not part of your dissertation, you still must complete this assignment. Consider it an exercise in structuring your thinking about the behavior in which you are interested. Please write your research question at the top of the math model as a reminder to your classmates.

- **Comments on Math Models of Two Classmates (10 points)**
- **Testable Hypotheses (5 points):** Write out the predictions which you have derived from your model, or which you think you will be able to derive from your model. You should focus on those hypotheses which can be tested using the data to which you have (or will have) access. These hypotheses will form the basis for your empirical investigation, however, please do not describe your data or identification strategy for this assignment. Focus on what your theory tells you.
- **Data Description and Challenges to Identification (10 points):** Describe the data set which you plan to use to answer your research question. You should also state whether you already have access to the data and, if not, how and when you plan on gaining access to it. The description of the data should include information such as how many observations (households, firms, counties, etc), at how many points in time, collected by whom, collected when, and what kinds of variables are in the survey. If you are using multiple data sources talk a bit about how you will merge them. You should also identify in the data the main dependent variable(s) and the main explanatory variables you will be using.

Please discuss the main identification challenge (or challenges) which you will face in trying to identify the causal impact of the explanatory variables on the dependent variables. Examples include simultaneity, endogeneity, and measurement error. Please include an estimation equation. Be specific about how this challenge pertains to your specific question and your specific data. So, for example, do not just say you are worried about omitted variable bias;

specify which important variable you believe is omitted. (I don't mean to suggest that everyone should be worried about omitted variable bias. Just be specific about whatever you think is the most pressing issue for your work.) You do not need to come up with a solution for these challenges. You will do that in a later assignment.

- **Literature Review Questions (5 points):** Answer the following three questions for the three literature reviews listed in the syllabus. 1) What organizational strategy does the author(s) use to structure the literature review? (While the introductions and literature reviews are mixed together, this question is just asking you about the organization of the literature review more narrowly, not the organization of the introduction as a whole.) 2) Discuss some stylistic elements of the literature review that you like or you think work well. 3) Discuss some stylistic elements of the literature review that you don't like or find annoying.
- **Identification Strategy (10 points):** This is a tricky and important assignment. In it you will discuss your strategy for overcoming the challenges you mentioned earlier. You should include your estimating equation(s). More common strategies include instrumental variables, matching, and regression discontinuity design. You must be very specific about your strategy. For example, if your strategy is instrumental variables, what instrument will you use and why is it a valid instrument. It would be good to take this assignment seriously and really spend time thinking through the issues.

Also, given that you will be sharing this document with your classmates who will need to give you feedback on it, make sure that this document contains enough of the preliminary information on the hypothesis you are testing and the data you have so that your classmates can read and understand the document so they can give you helpful feedback. Please write your research question at the top of the identification strategy as a reminder to your classmates.

- **Comments on Identification Strategy of Two Classmates (10 points)**
- **Introduction and Literature Review (10 points):** The introduction should focus on telling the reader what your question is and motivating why the question is important and interesting. It should also briefly discuss what the main innovation of your project is.

The literature review should not read as a laundry list of all the literature written on topics similar to your proposed research. Rather, it should be an explanation of what has been done before, focussing on how the previous literature relates to your work, and how your work builds on the previous work. In economics, many literature reviews are found in the introduction of papers and are quite short. Dissertation proposals tend to have longer literature reviews than published papers, partly to show professors that you have done your due diligence and you know the relevant literature well. Please write your research question at the top of the introduction and lit review as a reminder to your classmates.

- **Comments on Identification and Literature Review of Two Classmates (10 points)**
- **Slides and Presentation (10 points):** As part of your proposal defense, you will have to give a 10-20 minute presentation. Usually the only interruptions during these presentations are for clarifications. These presentations are followed by questions from the members of your committee. In the last week of class, each of you will present your proposal and hand in copies of your slides. You should invite your advisor to attend your in-class presentation.

- **Paper Proposal (40 points):** This is the final product of this class. Proposals vary a lot from person to person, and from field to field. As a vague estimate, they tend to be 20-30 pages long. The proposal should include all of the elements that you handed in previously, but should not simply cut and paste these assignments together. Your proposal may or may not include summary statistics and preliminary empirical results. For this class you only need to submit your proposal for your main paper. You do not need to submit any information about your second and third papers.

10 Children in the Classroom

UW Madison does not have a formal policy on children in the classroom so I adapted one from a Yale Business School class taught by Florian Ederer and Kevin Williams.

1. All babies (bottle-feeding, nursing,...) are welcome in class as often as is necessary.
2. For older children, I understand that unforeseen disruptions in childcare often place parents in the position of having to miss class to stay home. You are welcome to bring your child to class in order to cover gaps in care. This is not meant to be a long-term solution.
3. I ask that all students work together to create a welcoming environment that is respectful of all forms of diversity, including diversity in parenting status.
4. In all cases when your children come to class, please sit close to a door. This will allow you to step outside in case your child needs special attention.
5. I maintain the same standards and expectations for all students. However, please contact me if you are having difficulty with school-parenting balance.

11 Academic Misconduct

By virtue of enrollment, you agree to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but are not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Examples of academic misconduct include:

- presenting work that is not in the student's own words,
- submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another,
- submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas, and
- knowingly and intentionally assisting another student in any of the above.

We will discuss plagiarism and explore examples of plagiarism early in the course.