

**Senior Thesis Research Seminar in  
Macroeconomics, Monetary Economics, Public Economics, and Modeling  
Wednesday, 6:15 PM - 8:45 PM, Littauer M15**

**Objective**

The Ec 985 year-long seminars provide a forum where students pursue their independent thesis research. Each seminar is led by an Ec 985 instructor and has roughly 10-15 thesis writers per seminar. The Ec 985 seminars and instructors are integral in guiding students from the beginning stages of research to the final product of a high-quality thesis.

**The Role of the Ec 985 Instructor**

While each thesis student has a faculty advisor, the Ec 985 instructor's role is fundamental to a student's progress on their thesis. The style of each Ec 985 course may differ slightly, but all Ec 985 instructors have the same goal: helping thesis writers in the transition from student to scholar, leading them to conduct sound research and produce high-quality work.

Part of becoming a scholar also involves understanding, critiquing, and contributing to the work of others. Thus, a related role of the Ec 985 seminar is to foster discussion and peer-review among students.

**Meetings**

In the fall semester, there are weekly Ec 985 meetings. These vary each week and take the form of (1) group meetings with all ec thesis writers, (2) seminar meetings led by the Ec 985 instructor, or (3) individual meetings with the Ec 985 instructor. Seminar meetings are 2.5 hours each week. Individual meetings are 30 minutes and involve substantial discussions between the Ec 985 instructor and student. Throughout the semester, there are several deadlines to ensure thesis writers are progressing on their research and to provide them with feedback, both from the Ec 985 instructor and from fellow students.

In the spring semester, there is one all-thesis meeting and two seminar meetings; the bulk of guidance in Spring comes from individual meetings with the Ec 985 instructor.

**Thesis Content**

Acceptable theses are those which make a worthwhile contribution to the literature. Sometimes this contribution comes from an interesting empirical or theoretical result, but contributions can also arise from showing how an apparently promising avenue of research may not prove fruitful. Though there is no minimum or maximum length for theses, each thesis should have a reasonable idea, developed well enough for submission to an economic journal.

**Collaboration**

Discussing ideas and work-in-progress with others is an important and desirable part of the research process, both for thesis writers and researchers more generally. This is a key component of Ec 985. However, in the end, a student's thesis must be his or her own effort, written by the student, and ultimately based on his or her own thinking. All written assignments must use appropriate citation practices to acknowledge sources the student has consulted. For any questions about Harvard's stance on academic honesty, please consult the Academic Information section of the *Harvard College Handbook for Students*.

## Deadlines

Humans have a natural propensity toward procrastination. The effects of procrastination can be even worse for young researchers, who may not understand how long some parts of their projects will take (especially those involving data). Ec 985 provides a series of deadlines and deliverables to help thesis writers make steady progress on their research and produce high-quality theses. **All deliverables for Ec 985F are due at the class/meeting time of the week in which they are listed, unless specified otherwise.** (Note: deliverables' lengths are based on double-spaced pages. Additionally, page lengths are only suggestions—not minimums.)

The deliverables are designed to gradually build up to the final thesis. The “justification” due early in the fall semester will form the first few pages of the thesis Introduction. The data discussion due in October will become the first few pages of the thesis Data section. And so on.

## Grading

Students receive a letter grade for the fall semester of Ec 985, which is overwritten by the thesis grade if the student completes the thesis.<sup>1</sup> The fall grade is based on the Fall semester final paper (80%) and seminar participation (20%). If the student does not continue with Ec 985 in the spring semester, the fall grade will be the final course grade.

## Resources

- Our **Ec 985F google** doc (for all sign-ups): [https://docs.google.com/document/d/1qx1DyUeDQOurVoWX2ReHH4vZQ\\_V2\\_dflnEKsvhs4v2s/edit?usp=sharing](https://docs.google.com/document/d/1qx1DyUeDQOurVoWX2ReHH4vZQ_V2_dflnEKsvhs4v2s/edit?usp=sharing)
- **Ec Senior Thesis** page, with information on research funding, IRB, advisors, past thesis titles, formatting guidelines, etc. <http://economics.harvard.edu/senior-thesis>
- **Ec Department Stata/R Team:** Greg Bruich, Stacey Gelsheimer, Andrés Maggi, Samuel Stemper. <https://economics.harvard.edu/stata>
- **Institute for Quantitative Social Science:** <http://www.iq.harvard.edu>. Especially: access to the RCE ([www.iq.harvard.edu/research-computing](http://www.iq.harvard.edu/research-computing)) and support ([www.iq.harvard.edu/data-science-services](http://www.iq.harvard.edu/data-science-services)).
- **Economics Reference Librarian**, Diane Sredl: [sredl@fas.harvard.edu](mailto:sredl@fas.harvard.edu). Diane is an amazing resource for any questions about finding data.
- **HBS Data Sources (finance, business, etc):** <https://asklib.library.hbs.edu/faq/205180>
- **EconLit:** database of economics literature, useful for exploring papers in an area. Access online through Harvard Library: <http://library.harvard.edu>
- **Google Scholar:** useful for finding specific papers. When off-campus, tell google scholar you have Harvard Library access (“Settings” □ “Library Links”). <https://scholar.google.com>
- **Citation tools** (EndNote, Zotero, ...): <http://guides.library.harvard.edu/cite>
- A ranking of **economics publications**, to gain familiarity with different journals: <http://research.stlouisfed.org/publications/review/09/05/Engemann.pdf>
- John Cochrane’s **writing tips** for Ph.D. students. A bit advanced for undergrads, but useful. [http://faculty.chicagobooth.edu/john.cochrane/research/Papers/phd\\_paper\\_writing.pdf](http://faculty.chicagobooth.edu/john.cochrane/research/Papers/phd_paper_writing.pdf)
- Some recommended **books on writing and research:** *Elements of Style* by William Strunk, Jr. and E. B. White, *On Writing Well* by William Zinsser, *The Craft of Research* by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, and *Economical Writing* Deirdre N. McCloskey.

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<sup>1</sup> If the final thesis evaluation is “No Distinction,” the full-year Ec 985 grade will be determined in consultation with the Thesis Advisor and Ec 985 Instructor. In the case of a borderline thesis grade (e.g., A-/B+), the full-year Ec 985 grade will be determined by the Ec 985 Instructor. See “calculating Department honors”: <https://economics.harvard.edu/honors>.

- **Funding sources:** The **Database of Funding and Opportunities for Undergraduates:** <https://carat.fas.harvard.edu>. The Economics Department also has small grants for thesis-related work (up to \$700): <http://economics.harvard.edu/jobs-raships-funding>.

## 2019-20 Schedule for Ec Thesis Writers

### Fall Semester

#### Week of 9/2

- **Monday, 9/2:** Labor Day
- **Tuesday, 9/3:** First day of classes
- **Wednesday, 9/4, 4.30-5.30pm, Littauer 3<sup>rd</sup> Floor Lounge: Thesis Interest Meeting.** Welcome, info, logistics, and a discussion about research with the Ec 985 Team. Details on signing up for an Ec 985 seminar. Will outline steps for the coming weeks to get students on-track for a productive thesis-writing experience.

#### Week of 9/9

- **First Ec 985 seminar meeting.** Welcome, overview of 985, plans for semester, group discussion of students' ideas and interests. Talk about what students should do over the next two weeks. *Incorporate "What to do in coming weeks" into every meeting.*

#### Week of 9/16

- **Meet individually with Ec 985 instructor.** Goal: make sure student has an advisor and topic or is on track to doing so. If not, guide them on getting to this stage.
- **Deliverable #1:** This week, students submit a one-page prospectus that they'll discuss with the Ec 985 instructor in next week's individual meetings. The prospectus should be based on a specific question. (For example, a project describing the theory of tax incidence is not as good as specifically asking whether consumption taxes are preferable to income taxes.) **The goal:** Students should be able to express their key question or hypothesis in no more than two sentences and then briefly discuss why that research question is interesting and important.

#### Week of 9/23

- **Friday, 9/27, 8.30-10.15am: All-thesis meeting, Review of Econometrics, Boylston Hall Fong Auditorium.** Led by Gregory Bruich. Invaluable econometrics review for all thesis writers. Hot breakfast at 8.30am! Session begins promptly at 8.45am.
- **Meet individually with Ec 985 instructor.** Goal: make sure students have a clear thesis question and know where their work fits in the existing literature. With the instructor's help, students should outline the necessary steps for completing (1) the draft due in December and (2) the final thesis due in March. For example, if the work is empirical, think about what data are needed and potential econometric approaches. If students have found data, discuss whether it's sufficient. If the work is theoretical, think about the modeling to be done and how to get started.
- **Deliverable #2, for presenters in next week's seminar only:** A thesis justification, explaining why the thesis topic is interesting and important. This document should be a critical discussion of the relevant literature, motivating why the student's question is important. It should specifically place the research question in the context of the current literature. The idea is to show there is an interesting, important, and unanswered question that the student's project can help address. The literature discussed can relate to the background of the issue, the actual issue, the methodology used to address it, etc. **This justification will be a crucial part of the thesis Introduction section.** *Distribute the justification to the class ahead of time so students can prepare questions and comments for next week's presentations.*

## Week of 9/30

- **Seminar meeting.** Half of the class gives a detailed presentation of their thesis idea and discusses at least two pieces of related work on which their thesis builds. *Non-presenters should be prepared with questions and comments.*
- **Friday, October 4th, 12:00-1:00:** (optional) **Library Research Workshop** for Ec Thesis Writers, **Lamont Library, Room 310.** Led by Diane Sredl, Economics Data Reference Librarian.
- **Deliverable #2, for presenters in next week's seminar only:** A thesis justification, explaining why the thesis topic is interesting and important. This document should be a critical discussion of the relevant literature, motivating why the student's question is important. It should specifically place the research question in the context of the current literature. The idea is to show there is an interesting, important, and unanswered question that the student's project can help address. The literature discussed can relate to the background of the issue, the actual issue, the methodology used to address it, etc. **This justification will be a crucial part of the thesis Introduction section.** *Distribute the justification to the class ahead of time so students can prepare questions and comments for next week's presentations.*

## Week of 10/7

- **Monday, 10/7: Deadline to submit Thesis Advisor Form** to Littauer 112. If you do not turn this in by 4pm, you must drop Ec 985 and the thesis.
- **Seminar meeting.** The **other half** of the class does the same as last week.

## Week of 10/14

- **Meet individually with Ec 985 instructor.** Touch base on progress, discuss comments from presentations, etc.
- **Thursday, October 17th, 4:00-5:00:** (optional) **Library Research Workshop** for Ec Thesis Writers, **Lamont Library, Room 310.** Led by Diane Sredl, Economics Data Reference Librarian.

## Week of 10/21

- **Thursday, 10/24, 8.30-10am: All-thesis meeting, *Advanced Stata and Econometrics*, Room TBA.** Led by Gregory Bruich. This session will cover advanced econometric techniques and their implementation in Stata. Hot breakfast at 8.30am! Session begins promptly at 8.45am.
- ***Optional: Meet individually with Ec 985 instructor.*** Encouraged for students who would like additional guidance for next week's Data/Methodology/Modeling deliverable.

## Week of 10/28

- **Meet individually with Ec 985 instructor.** Discuss empirical strategy and/or modeling strategy and plans for this week's Data/Methodology/ deliverable and the upcoming presentations.
- **Deliverable #3:** Students doing empirical papers should have their data. Students need to submit a paper discussing data sources, econometric tests that they plan to run, and a preliminary summary statistics table. (They should also discuss shortcomings of the data.) Students doing theoretical papers need to submit a paper discussing their model and any particular techniques they will use. **This work will form a crucial part of the Data/Methodology/Modeling section(s) of the thesis.**
- **Deliverable #4, for presenters in next week's seminar only:** A one-page summary of the project. By this time, students should have a clear idea of what they can (and cannot) do with their project. *The one-page summary should be distributed to the class ahead of time so students can prepare questions and comments for next week's presentations.*

## Week of 11/4

- **Seminar meeting.** **Half** of the class presents their thesis question, including (but not limited to): background of the issue, motivation/relevance of their question and contribution to existing literature, data/models they'll be using, anticipated findings.
- **Deliverable #4, for presenters in next week's seminar only:** A one-page summary of the project. By this time, students should have a clear idea of what they can (and cannot) do with their project. *The one-page summary should be distributed to the class ahead of time so students can prepare questions and comments for next week's presentations.*

### Week of 11/11

- **Seminar meeting.** The **other half** of the class does the same as last week.
- **Meet individually with Ec 985 instructor.** Discuss comments on Deliverable #3 and make sure it's clear what work is needed to advance the empirical work and/or model.

### Week of 11/18

- **Meet individually with Ec 985 instructor.** Discuss comments on Deliverable #3 and ensure students are well-equipped to work on Deliverable #6.
- **Wednesday, 11/20, 8.30-10.15am: All-thesis meeting, *Writing*, Room TBA.**  
Led by Kiran Gajwani. This session will cover structure and writing guidance for research writing and other useful tips as students work on their Fall semester thesis draft (Deliverable #6). Hot breakfast at 8.30am! Session begins promptly at 8.45am.

### Week of 11/25

- **Optional (up to Instructor, not Student!) ☺ Deliverable #5:** Submit a first full draft of the paper before Thanksgiving Break, bringing together the work and comments from previous deliverables (rough guideline: 10 pages). All drafts should include a discussion of relevant literature and motivation for the current project (i.e., the **Introduction** section of the thesis). For empirical theses, this draft should include a detailed empirical section that includes a discussion of the data, summary statistics, and preliminary regressions (i.e., the **Data/Methodology** section(s) of the thesis). For theory papers, the draft should include a preliminary set-up of the model (i.e., the **Model** section of the thesis). **Previous work and feedback on Deliverables #2 and #3 will be immensely useful here.**
- Thanksgiving Break, Wednesday-Friday.

### Week of 12/2

- **Meet individually with Ec 985 instructor.** Last meeting of the Fall semester and last meeting before the final Fall semester page paper is due. Discuss any remaining questions and clearly outline what work remains. Discuss expectations for the final draft due this week and provide guidelines for work to be done over winter break.
- **Deliverable #6, Monday, 12/9: Deadline to submit final Fall semester paper to Ec 985 instructor.** This will form the major portion of the Fall semester grade. If the paper is empirical, the student must have included at least one empirical result (e.g., a regression). If the paper is theoretical, the paper must include a workable version of the model. This paper should be divided into sections and start taking on the structure of the final thesis. This is essentially a first draft of thesis and will be revised and expanded into the final thesis during the first six weeks of the spring semester. There is no page minimum or maximum; a rough guideline would be 25 pages.
  - Also: Each student will write a **peer review** of a classmate's final Fall semester paper. Paper allocation to be decided by Ec 985 instructor. Due by the end of final exam period.

### Spring Semester

## Friday, 1/24

- **Deliverable #6.5**: Please email a short update to the Ec 985 instructor: how the thesis is going, summarize any changes since the December draft, etc. **Due by 5pm, Friday, 1/24.**

## Week of 1/27

- **Monday, 1/27**: First day of classes
- **Meet individually with Ec 985 instructor**. Goal: touch base, discuss what needs to be done in the next six weeks, help with any questions that have arisen since December.

## Week of 2/3

- **Date/Location TBA: All-thesis meeting, *Putting it All Together*, Littauer 3<sup>rd</sup> Floor Lounge.**  
Led by Jeff Miron. Writing up the thesis, presenting your results, and some final thoughts as students finish up their theses. Hot breakfast at 8.45am! Meeting begins promptly at 9am.

## Week of 2/10

- **Meet individually with Ec 985 instructor**. Last meeting before submitting the final draft.
- **Deliverable #7, for presenters in next week's seminar only**: Submit (1) a complete draft of the thesis, including Abstract and (2) a one-page summary for distribution to the class ahead of time.

## Week of 2/17

- **Seminar meeting (time decided by instructor and students)**. **Half** of the class presents their thesis findings. Hand out advisor invitations for the Thesis Champagne Celebration.
- **Deliverable #7, for presenters in next week's seminar only**: Submit (1) a complete draft of the thesis, including Abstract and (2) a one-page summary for distribution to the class ahead of time.

## Week of 2/24

- **Seminar meeting (time decided by instructor and students)**. **The other half** of the class does the same as last week. Hand out advisor invitations for the Thesis Champagne Celebration.
- ***Optional*: Meet individually with Ec 985 instructor**. Helpful if there are major issues to discuss from the thesis draft.
- **Saturday, 2/29**: Happy Leap Year!

## Week of 3/2

- **Final individual meeting with Ec 985 instructor**. Discuss thesis draft, any remaining work to be done, and any final comments.

## Week of 3/9

- **Thursday, 3/12**: Theses due by 5pm. **Champagne party!**

## April & May

- **Wednesday, 4/8**: **Honors exam**, 3-6pm. Party at the Cambridge Queenshead afterwards!
- **Thursday, 4/30**: Ec Senior Thesis Poster Session (participation optional). Display your thesis work for faculty and students. Sign-ups and details TBA. If interested, contact Kiran ([kgajwani@fas.harvard.edu](mailto:kgajwani@fas.harvard.edu)).
- **Tuesday, 5/19**: Ec Department Senior Picnic, 12-2pm, Littauer backyard. Great food, fab people, fun times!
- **Tuesday, 5/26**: Ec Seniors Cap & Gown photo on the Littauer steps, ~4pm (after Widener photo).
- **Thursday, 5/30**: Graduation!