# Growth, Development, and the Environment (EC8510) 2025-26

*Course Outline. Subject to (minor) Changes.*

**Instructor:** Jonathan Colmer

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**Lectures:** Monday 5:00PM - 7:30PM

**Office Hours:** I am very happy to chat with you about your research ideas (my availability to discuss research is the purpose of the course). Please DM me on our Slack page to set up a time.

**Slack:** Slack is our main mode of communication. Please join the group here, https://tinyurl.com/GDE-2025 and make sure notifications are turned on.

**Website:** We will be setting up a Course Github repo in the first class.

**Pre-Requisites:** First year graduate-level microeconomics, macroeconomics, and econometrics.

## Course Organization

**Content:** The course will provide an introduction to frontier topics in growth, development and environmental economics. The purpose of the course is to introduce you to core ideas, the latest research, and prepare you to undertake research on your own.

### Part 1: Facts and Measurement

- Motivation, and Stylized Facts
- Measuring Growth and Development

### Part 2: Growth Theory Paradigms

- Neoclassical Growth Theory: The Solow-Swan and Ramsey models
- Endogenous Growth Theory: The AK Model
- Endogenous Growth II: The Romer Model (Product Variety)
- Semi-Endogenous Growth Theory
- Endogenous Growth III: Schumpeterian Growth Theory

### Part 3: Topics

- Finance, Growth, and Development
- IO, Growth, and Development
- Human capital, growth, and development

- Trade, growth, and development
- Institutions, growth, and development
- Environment, growth, and development

**Assessment:**

- At least 5 Research Ideas (50%)
- Summer Paper Research Proposal (40%)
- Class Participation (10%)

## Class Participation

The Class Participation Grade corresponds to attendance and active engagement in class. You are expected to complete readings in advance of class and engage actively in class discussions. Discussion of research papers will be an active part of the class.

If you intend to conduct research in development economics you should attend the Global Development Seminar. Attendance of at least one seminar is critical to your development as professional researchers, even (especially) when the topic doesn't align with your area of active research. Please let me know, which seminar you will be attending.

## Getting Started Doing Research

Over the course of the semester, I'd like you to write short (one page) descriptions of research ideas you are exploring. Think about multiple ideas until you have settled on the one you are most excited about (even then it's not a bad idea to have multiple irons in the fire). Your ideas don't need to be related to growth, development, or environmental economics. The objective is for you to get as much experience as possible as quickly as possible in formulating and pitching professional-level research ideas.

Set up a google doc that you can share with me and track your ideas over time. An idea is not a question. An idea is a question that you can answer. The question should be well-motivated, i.e., hook a broader audiences interest. I would encourage you to keep things simple and precise. Then comes the hard part, making a convincing case that you can answer the question. Not all uncertainty can be resolved. Nevertheless, as quickly as possible you need to determine whether you can make any headway. You need to figure out a clear plan of implementation for answering the question. More often than not this requires having access to relevant data and having a research design. You should understand the assumptions that facilitate an answer to your question. It is also important to understand basic facts about your topic and context. There is a lot of ground work that goes into motivating a research project. Basic facts help to give you a direction and reduce the dimensionality of the problem. Most importantly, you must be able to clearly state what your contribution is, i.e., what do we learn that we didn't already know?

## Project

The project is an extension of one of your research ideas. The goal is to dig deeper and push an idea as far as you can (you may even end up with the start of a research project at the end of it). What do you need to figure out to see whether the paper has promise? Initial descriptive results? a toy model that helps to lay out the key ideas? Figure out the hurdles that need to be overcome for the paper to survive and then clear as many hurdles as you can. It's fine if you aren't able to

overcome a hurdle (but better to figure out fundamental constraints as quickly as possible). Discuss what would need to happen to overcome it (money? time? planning?). Use the feedback on your weekly research ideas to push on the most promising ideas, but ultimately you should work on the project you are most interested in.