# Introduction to Econ 671, Fall 2014

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# What are you supposed to be able to do after the econometrics core?

- 1. Have background knowledge on common estimation strategies
- 2. Take future econometrics and applied economics classes
- 3. Stay current with future developments in econometrics
  - Read academic journals to learn about new techniques
  - Program new estimators that aren't already supported by statistical packages

#### 4. Conduct your own empirical research

- Collect new data or combine existing datasets
- Plan the data analysis
  - Decide on a model or models and appropriate statistics
- · Estimate some statistics
- Interpret those statistics
- · Write a research paper summarizing that analysis

#### How do those expectations match up with teaching strategies?

- Traditional structure
  - Lecture
  - Class discussion (very little in PhD classes)
  - · Individual reading and problem sets
- This structure can help with
  - 1. Have background knowledge on common estimation strategies
  - 2. Take future econometrics and applied economics classes
  - 3. Stay current with future developments in econometrics
- It doesn't help very much with conducting your own empirical research

### How do those expectations match up with teaching strategies (cont)?

- "Flipped classroom" structure
  - Spend "lecture time" working on difficult and open-ended problems close to what you will encounter in your research or at work
  - Prepare with background reading and exercises outside of class
- This structure will *still* help with
  - 1. Have background knowledge on common estimation strategies
  - 2. Take future econometrics and applied economics classes
  - 3. Stay current with future developments in econometrics
- But it will emphasize skills that help you conduct your own empirical research

#### Specifics of Team-Based Learning (in this class)

- Students (you) will study the material before we cover it in class
- How do we incentivize this? Tests and peer evaluations
- For each "module" (there are 6 in the semester)
  - 1. Pre-class individual study
  - 2. Readiness Assurance Process
    - 1 or 2 class meetings
    - 2.1. Individual test
    - 2.2. Team test
    - 2.3. Written appeal process
    - 2.4. Targeted instructor feedback (a short lecture)
  - 3. Application oriented activities
    - 2 to 5 class meetings
    - Work as teams

#### What do we do with review sessions?

- Traditional lectures use the Friday review sessions to go over homework
- That's not necessary in this class
- We'll use the Friday review sessions to teach you computer skills
  - Use the curriculum developed by http://www.software-carpentry.org
  - Combination of programming and software development practices

#### Characteristics of effective teams

- Diverse backgrounds & skills
- Broad cohesiveness & balance
- Trust and mutual respect

## Incentives to make the teams fair

- Your team's performance is a major component of your grade
- Your teammates' evaluations of your contribution is also a major component of your grade
- The class will collectively decide how to quantify "major component"

#### Review the syllabus

- 1. Form teams and collect your team folder
- 2. Read the syllabus (10 minutes)
- 3. Take individual *Readiness Assurance Test* (RAT) on the contents of the syllabus
- 4. Take team RAT on the contents of the syllabus
- 5. I'll answer any remaining questions about the syllabus and class structure

#### Determine grade weights

- 1. Each team will set preliminary weights and select a member to meet with other teams' representatives.
- 2. Team representatives will meet in the center of the room and develop a consensus (i.e., every representative has to be in agreement about the grade weights for the class as a whole.)
- 3. There are some limitations on the grade weights listed in the syllabus

#### Next class meetings

- You'll have a brief meeting with the TA in the computer lab on Friday
- Our next class meeting will be Tuesday; we'll do the RAT for the probability module