

**Welcome to the
2017 Boot Camp of the
Open Source Macroeconomics Laboratory
Becker Friedman Institute
University of Chicago**

Dr. Richard W. Evans

June 19, 2017

Today's Schedule

Time	Description
7:15–8:00am	Breakfast
8:00–8:50am	OSM Lab Intro, Evans
9:00–9:45am	Thomas Sargent, Intro “Economic models, computation, and Python”
10:00–11:50am	Overlapping generations models, Evans
12:00–1:20pm	Lunch speaker, Casey Mulligan “CAD Reasoning for Theory Problems”
1:30–2:20pm	Chicago safety briefing
2:30–3:30pm	Walking tour of UChicago, Evans

Introduce Me, Staff, and Instructors

- Richard Evans, Director
- Grace Hammond, Becker Friedman Institute
- [List of instructors](#)

Funding

Generous 5-year grant

Students

- Over 150 applicants from best universities in world
- Admitted 26
- 23 accepted admission
- Average GPA: 3.87

Introduce

Have students introduce selves

Lineage of OSM Lab

- ① 2007-2013, Humpherys, BYU IMPACT, NSF Grant
 - Interdisciplinary Mentoring Program in Analysis, Computation, and Theory
 - I was on IMPACT faculty advisory, Co-PI on NSF curriculum grant, taught classes.
 - 2011-2013 Funded by individual donor
- ② End of 2011: IMPACT turning into a degree program
 - IMPACT to go away by end of 2013
 - Return in 2015 as Applied and Computational Math Emphasis (ACME)
- ③ As IMPACT phase out, my research increasing

Lineage of OSM Lab

- ④ 2012: IMPACT donor came to me to start BYU Macroeconomics and Computational Laboratory
- ⑤ BYU MCL runs from 2012 to 2016
 - Undergrads become coauthors on many papers
 - Excellent graduate placement
 - One is mentioned in Tom Sargent's talk
- ⑥ Summer 2016: Evans to Univ. of Chicago
- ⑦ Dec. 2016: OSM Lab funded by large 5-year grant
- ⑧ June 2017: Begin first OSM Lab Boot Camp

Mission of OSM Lab

Boot Camp Mission

Train students with modern theoretical and computational tools with an emphasis on open source methods. Support students in mentored research.

- Mathematics
- Economics
- Computational Methods

OSM Lab Mission

Provide open source training and support economic research using open source tools.

OSM Lab Culture

- Casual in dress, formal in effort and analysis
- Instructors are mentors, approachable
- Premium on collaboration, helping fellow students
- Entrepreneurial approach to research

OSM Lab GitHub Repo

- All detail on [Boot Camp GitHub Repo](#)
- Tutorials, schedule, source material, problem sets
- Each student should set up own GitHub account at github.com
 - You will turn in your problem sets via your GitHub accounts
 - Grading results in 0, 1, 2 on prob sets \Rightarrow [blank], distinction, high distinction on certificate
- Probably want to select “Watch” on this repo

Collaboration

- Collaboration is essential skill
- Boot camp format enables effective collaboration
- Curriculum is designed to be too hard to do alone
- “Big kid” research requires this kind of collaboration

WARNING

- Please do NOT spend majority of time working by self
- Work with others

Short-term goals

- Curriculum should be hard, great
- Modern tools in econ, computation (require math)
- Object oriented programming in open source language (Python)
- Get best advanced undergraduate students

Long-term goals

- Place students in the best graduate programs
- Modular, open source curriculum that others can use
- Create “research monster” students who become next gen researchers (pipeline)
- Support research using economic/computational methods
- Support research using open source methods