

## Topic Outline: Review & Applications

Revised: March 20, 2016

### Materials

- Today's handouts: this outline, stickers (as needed)
- Posted on *Topic outlines & links* page of website (except the stickers)

### Preliminaries

- Next week's exam
  - Covers: Python fundamentals 1/2, data input with Pandas, graphics with Matplotlib
  - Like a drivers test: establishes basic competence
  - Format: an IPython notebook like the one we use below
  - Rules: open book and open internet, but we recommend you prepare and bring a one-page “cheat sheet”
- Setup
  - Put red sticker on your laptop
  - Download IPython notebook  
[https://github.com/DaveBackus/Data\\_Bootcamp/blob/master/Code/IPython/bootcamp\\_exam\\_practice.ipynb](https://github.com/DaveBackus/Data_Bootcamp/blob/master/Code/IPython/bootcamp_exam_practice.ipynb)  
and save Raw file in your `Data_Bootcamp` directory
  - Start Jupyter and open notebook
  - Replace red sticker with green when you're set

### Exam practice

Work your way through the practice exam. Raise your hand when you get stuck.

- IPython basics
- Python fundamentals
- Data input with Pandas
- Graphics with Matplotlib

## Applications

### Setup

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[https://github.com/DaveBackus/Data\\_Bootcamp/blob/master/Code/IPython/bootcamp\\_examples.ipynb](https://github.com/DaveBackus/Data_Bootcamp/blob/master/Code/IPython/bootcamp_examples.ipynb)  
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We'll follow the notebook, but tell us which ones interest you:

- Current economic conditions
- Government bond yields
- Option prices
- Employment trends
- Government debt
- Aging populations
- Declining birth rates
- Ease of doing business

### After class

- Required
  - Nothing
- Recommended
  - Review book chapters
  - Review code practice
  - Prepare your cheat sheet