QuantEcon Open Source Economics Lab Boot Camp Topic Schedule: 2019

University of Chicago, Saieh Hall, Room 247

July 1 to August 9, 2019

			Math Lectures (8:00-9:50am)			Econ Lectures (10:00-11:50am)			Computation Labs (8:00am to noon)			Lunch Speaker (noon to 1:30pm)	
Wk	Date	Day	Topic	Instructor	Source	Topic	Instructor	Source	Topic	Instructor	Source	Topic	Instructor
	1-Jul	Mon	Numerical derivatives	Jan Ertl		Dynamic programming	Felix Kubler						
	2-Jul	Tue							Python intro, standard library	Rebekah Dix			
1	3-Jul	Wed	Numerical integration	Jan Ertl		Dynamic programming	Felix Kubler						
	4-Jul	Thu											
	5-Jul	Fri	Object oriented programm	Jan Ertl		Dynamic programming	Felix Kubler					TBA	TBA
	8-Jul	Mon	Econometric Society Dynamic Structural Economics Workshop			Econometric Society Dynamic Structural Economics Workshop							
	9-Jul	Tue	Econometric Society Dynamic Structural Economics Workshop			Econometric Society Dynamic Structural Economics Workshop							
2	10-Jul	Wed	Econometric Society Conference on Dynamic Structural Economics			Econometric Society Conference on Dynamic Structural Economics							
	11-Jul	Thu	Econometric Society Conference on Dynamic Structural Economics			Econometric Society Conference on Dynamic Structural Economics							
	12-Jul	Fri	Econometric Society Dynamic Structural Economics Workshop			Econometric Society Dynamic Structural Economics Workshop							
	15-Jul	Mon	Intro to measure theory	Jan Ertl	Notes	DSGE	Kerk Phillips						
	16-Jul	Tue							Sparse grids	Simon Scheidegger			
3	17-Jul	Wed	Intro to measure theory	Jan Ertl	Notes	DSGE	Kerk Phillips						
	18-Jul	Thu							High performance computing	Simon Scheidegger			
	19-Jul	Fri	Intro to measure theory	Jan Ertl	Notes	DSGE	Kerk Phillips					TBA	TBA
	22-Jul	Mon	Overlapping Generations M	Richard Evans		Firm Dynamics	Thomas Winberry						
	23-Jul	Tue							High performance computing	Simon Scheidegger			
4	24-Jul	Wed	Overlapping Generations M	Richard Evans		Firm Dynamics	Thomas Winberry						
	25-Jul	Thu							High performance computing	Simon Scheidegger		New software for MF mc	Lars Hansen, Joseph Huang
	26-Jul	Fri	Overlapping Generations M	Richard Evans		Firm Dynamics	Thomas Winberry						
	29-Jul	Mon	Krusell-Smith, Het. Agent	Anthony Smith, Jr.		Asset Pricing	Scott Condie						
	30-Jul	Tue	Krusell-Smith, Het. Agent	Anthony Smith, Jr.		Asset Pricing	Scott Condie						
5	31-Jul	Wed	Climate models	Anthony Smith, Jr.		Asset Pricing	Scott Condie						
	1-Aug	Thu							Pandas and visualization	Rebekah Dix			
	2-Aug	Fri							Pandas and visualization	Rebekah Dix		TBA	TBA
	5-Aug	Mon	Machine Learning	Richard Evans		International economics	Felix Tintelnot						
	6-Aug	Tue	Machine Learning	Richard Evans		International economics	Felix Tintelnot						
6	7-Aug	Wed	Machine Learning	Richard Evans		International economics	Felix Tintelnot						
	8-Aug	Thu	Machine Learning	Richard Evans									
	9-Aug	Fri	All homework due			All homework due			All homework due				
			19 lecture periods	38 hours		19 lecture periods	38 hours		13 lab periods	52 hours			

Computational set up: Students should have completed basic Python, git, and LaTeX tutorials before beginning the Boot Camp. Students should have the Anaconda distribution of Python loaded on their machines with Python 3.6 + as their default kernel. Students should also have a text editor (e.g., Atom, Sublime Text 3, Vim) that they can use for writing Python scripts and LaTeX document source code.

Coursework Prerequisites:

- Math: Linear algebra, multivariable calculus, real analysis
- Economics: Core undergraduate microeconomics (calculus based, constrained optimization)
- Statistics: Econometrics, probability theory
- Computation: Some experience (coursework or other) programming in a full-scale programming language

Tutorials and Python labs to complete before camp begins:

- LaTeX tutorial
- Git and GitHub.com tutorial
- Install Anaconda distribution of Python
- Beginning Python lab notebooks