EC 327: Topics in Economics
Computational Methods in Economics

Professor: Allison Luedtke

January 13, 2020

1. COURSE INFORMATION

- **Professor:** Allison Luedtke

  - Email: aluedtke@smcvt.edu
  - Office Hours: Tuesday 10:00 - 2:00, or By Appointment

- **Meeting Times:** MWF 1:30 - 2:35

- **Textbook(s):** *Quantitative Economics with Python* by Thomas J. Sargent and John Stachurski

  - Online: https://lectures.quantecon.org/py/index_undergrad.html

- **Tentative Test Dates**

  - Test 1: Monday February 3
  - Test 2: Monday March 2
  - Test 3: Friday April 3
  - **(Cumulative) Final Exam**

- **Grading:**

  - Tests 1, 2, and 3: 20% each
  - Homework: 20%
  - Final: 20%

- **Academic Integrity:**

  - If you cheat, plagiarize, or in any way turn in work that is not your own, you will receive a failing grade in the course.

2. Course Outline

Section 1: Introduction to Python

- Introduction to Python

- Scientific Libraries

- Advanced Python Programming

- **Test 1: Introduction to Python**

Section 2: Data and Techniques

- Data

- Linear Regression

- Maximum Likelihood

- Lots of Fun Math Topics!

- **Test 2: Data and Techniques**

Section 3: Dynamic Programming

- Shortest Paths

- Job Search

- Optimal Savings

- **Test 3: Dynamic Programming**

Section 4: Multiple Agent Models

- Rational Expectations Equilibrium

- Markov Perfect Equilibrium

- Asset Pricing

Cumulative Final Exam