ECON 181
ECONOMIC DEVELOPMENT: THEORY AND POLICY

Instructor: Rajveer Jat

Summer Session, 2024

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Class Room: 216, Student Success Center	Class Hours: Tues &Thurs 5:00-7:50 pm
Office Room: 3129, Sproul Hall	Office Hours: Tues & Thurs 4:00-4:50 pm

Course Description

Brief Introduction

We'll discuss theories of economic development and critically examine the key development strategies and policies. We'll take the concepts learned in the class to data using Python programming tools. You'll be taught Python programming required for data analysis from scratch, but will not be asked to write codes for any test or exam. We will explore growth theory, labor and migration, infrastructure, technology, human capital, and structural transformation. Key Python libraries will include *NumPy, Pandas, Matplotlib*, and *Scikit-learn*. My previous students found the programming taught in my course helpful in their job interviews. I focus mostly on learning. The exams are easy in my course, so you don't need to stress about it

Learning Goals

By the end of this course, you should be able to learn the major concepts related to the following in light of the economics of development:

Theories of Economic Development

1. Growth Theory: Convergence and Poverty Traps
2. Structural Transformation
3. Role of Infrastructure and Technology in Development
4. Role of Human Capital (Education and Health) in Development
5. Role of Government and Finance in Development Process

Data Analysis

1. Exploratory Data Analysis in Python
2. Causal Inference in Python

Scientific Communication and Documentation

- Creating dynamic reports (coding + documents) with Python Notebooks
- Ability to debate and scientifically argue in favor or against policies and issues.

Prerequisites/Corequisites

Intro to Macroeconomics will be helpful. No prior programming knowledge is assumed.

Required Materials

- *Textbook:* "Development Economics: Theory and Practice" By Alain de Janvry, Elisabeth Sadoulet, 2^{nd} Edition, eBook ISBN: 9781003024545.
- Additional Readings will be posted on Canvas.

Class Structure

1. **5:00 to 6:15 PM: Theory Lecture**
    - I'll introduce the concepts and theoretical framework.
2. **6:15 to 6:30 PM: Break**
3. **6:30 to 7:50 PM: Data Analysis Using Python**
    - I will teach basic programming in Python required for data analysis.
    - We will analyze theories in the real world using data.

Assessments

Homework is the major part of the assessments. You are supposed to write a one-page summary of the assigned readings. You will not be asked to write code in the exam. You can miss at most one class to receive full attendance points. Exams are going to be easy, the focus is on learning and not on testing.

Weights

- Homeworks: 60%
- Attendance: 16%
- Final Exam: 24%

Grading Policy

I reserve the right to curve the scale dependent on overall class scores at the end of the session. Any curve will only make obtaining a certain letter grade easier. The score to conversion table is given below; the square bracket '[' means it includes the value, while parenthesis '(' means it does not include that value; for example, [90,95) means from 90 to 95 but includes 90 and excludes 95.

Table 1: Score to Letter Grade Conversion Policy (All values are in percentage)

A+	[95, ∞)	A	[90, 95)
A-	[85, 90)	B+	[80, 85)
B	[75, 80)	B-	[70, 75)
C+	[65, 70)	C	[60, 65)
C-	[55, 60)	D+	[50, 55)
D	[45, 50)	D-	[40, 45)
F	[0, 40)		

Schedule and weekly learning goals

The schedule is tentative and subject to change. The learning goals below are key concepts you should grasp after each lecture. As homework, you need to write a one-page (A-4 size, 11pt font size) summary of the assigned readings after every lecture.

- **Lecture-1 : Introduction** June 25, 2024
  - Course Overview.
  - Basic Concepts in Development Economics (Reading: Ch 1 and 2 of the textbook)
  - Data Analysis and Programming in Python:
    1. Introduction to Google Colab
    2. Basics of Python Programming: Common Operations, Lists, Tuple
- **Lecture-2: Poverty and Inequality** June 27, 2024
  - Poverty and Vulnerability Analysis (Reading: Ch 5 of the textbook)
  - Inequality, Inequity, and Inclusive Growth (Reading: Ch 6 of the textbook)
  - Data Analysis and Programming:
    Writing control-flow statements and functions in Python
- **Lecture-3: Growth Theory** July 02, 2024
  - Solow Model (Reading: Ch 8 of the textbook)

- Poverty Traps (Reading: PDF on Canvas)

- Data Analysis and Programming:
  Intro to Python Libraries (*NumPy, Pandas, Matplot-lib, scikit-learn*)

- **Lecture-4: Structural Transformation** July 09, 2024
  - Demographic Constraint: Malthusian Theory (Reading: PDF on Canvas)
  - Structural Transformation (Reading: PDF on Canvas)

  - Data Analysis and Programming:
    Exploratory Descriptive Analysis (EDA)

- **Lecture-5: Labor and Migration** July 11, 2024
  - Agricultural Productivity Gap (Reading: Section I, II, III, IV.H, VIII of APG_paper PDF on Canvas)
  - Agricultural Productivity Gaps in Informal Markets and their Policy Implication (Reading: APG_informal PDF on Canvas. Especially See Table-4 at the end)

  - Data Analysis and Programming:
    1. Linear Regression
    2. Uncovering a non-linear relationship between two variables.

- **Lecture-6: Infrastructure and Technology** July 16, 2024
  - Agricultural R & D: IPR, Public Sector, Adoption, Welfare Impacts, Regulation (Reading: Technology PDF on Canvas).
  - Transport infrastructure and its implication on development (Reading: Infrastructure PDF on Canvas)

  - Data Analysis and Programming:
    -Replication of selected results of the paper: Aggarwal, Shilpa [2018] "Do rural roads create pathways out of poverty? Evidence from India", *Journal of Development Economics*.

- **Lecture-7 Finance and Policy Evaluations** July 18, 2024
  - Causal Inference: Econometric Methods (Reading: Ch 4 of the textbook).
  - Financial Services for the Poor (Reading: Ch 13 of the textbook)

  - Data Analysis and Programming:
    -Effect of PROGRESA conditional cash transfer program on education (Optional Reading: Ch 14 of the textbook).
    -Impact Evaluation: Assessment of the impact of credit on village economies.

- **Lecture-8 Human Capital : Health and Education** July 23, 2024
  - How Education and Health Affects Development (Reading: Chapter 17 of the textbook)
  - Data Analysis and Programming:
    -Randomized Control Trials (RCT) to improve the quality of education in schools.
- **Lecture-9: Role of the Government** July 25, 2024 (5 to 6 PM)
  - Political Economy and the Role of the State (Reading: Ch 21 of the textbook)
  - Final Exam (From 10:30 PM to 11:50 PM).
- **Final Exam** July 25, 2024 (6:20 to 7:50 PM)
  - Final Exam (From 6:20 PM to 7:50 PM).

Academic Integrity

For all of your papers and assignments, please make sure that your work is original unless required to work in groups! Please understand that intentionally copying another person's paper or submitting someone else's work as your own is considered cheating and is against the academic integrity policies. All students involved in such behavior will automatically lose all points for that assignment and will be subject to any additional penalties as outlined by the administration at the University of California, Riverside.

Students with Disabilities

Students with disabilities who wish to request special accommodations are encouraged to contact me via email, during office hours, or by appointment, and I will be happy to help you in any way that I can. Please understand that the earlier you contact me, the more I will be able to accommodate you for the course.

Acknowledgement

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