ECON 585 Economic Growth and Development

Instructor: Dr. James Saunoris Office: 703F Pray-Harrold E-mail: jsaunori@emich.edu Office Phone: (734) 487-3068 Class Website: https://canvas.emich.edu/ Class: Mondays & Wednesdays 3:30-4:45 p.m. Office Hours: MW 1:00-3:30 p.m. and by appointment

"I do not see how one can look at figures like these without seeing them as representing possibilities. Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, what exactly? If not, what is it about the "nature of India" that makes it so? The consequences for human welfare involved in questions like these are simply staggering: Once one starts to think about them, it is hard to think about anything else."

-Robert Lucas Jr. (1988)

Description

This course covers advanced topics in macroeconomics with a focus on theoretical and empirical macroeconomic modeling of economic growth. In particular, we introduce models of modern economic growth along with empirical applications that shed light on the mechanics of economic growth and technological change. We use these economic models and empirical applications to answer the three big macroeconomic questions: (1) Why are some countries rich and others poor?; (2) What is the engine of economic growth?; and (3) How do we understand growth miracles and growth disasters?

Prerequisites: ECON 501 and ECON 502, or equivalent

Required Textbook

Jones, C.I. and Vollrath, D. <u>Introduction to Economic Growth</u>, 3rd edition, W.W. Norton & Company. ISBN: 978-0-393-9197-2

All lecture notes and assignments will be posted on https://canvas.emich.edu/.

Required Statistical Software

In this course we will use the statistical software package R. R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. For instructions on how to install R and use R consult the R self-help guide posted on Canvas. Be sure to install R and R Studio on your personal computer before the first day of class. R (and R Studio) is installed on all the computers in the computer lab located in room 717 of Pray-Harrold. A teaching guide for the R statistical package, and data sets that accompany the R teaching guide can be downloaded from Canvas. A good online resource for using R is https://stats.idre.ucla.edu/r/.

Recommended Textbooks & Other Readings

Weil, David N. Economic Growth, 3rd edition, Routledge.

Aghion, P. and Howitt, P. (2008). <u>The Economics of Growth</u>, The MIT Press.

Easterly, W. (2001). The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics, The MIT Press.

Warsh, D. (2007). Knowledge and the Wealth of Nations: A Story of Economic Discovery, W.W. Norton & Company.

Grading

Your grade will be based on two midterm exams (25%), a final exam (25%), problem sets (10%), and empirical project (15%). The grading scale for the course is as follows:

A93-100%	C+76-79%
A90-92%	C73-75%
B+86-89%	C70-72%
B83-85%	F0-69%
B80-82%	

Exams

There will two midterm exams and one final exam. The final exam is not comprehensive and will cover the material succeeding the second midterm. The exams will cover materials from lecture, textbook, problem sets and any additional assigned readings. Each exam will consist of short and long answer questions, including problems. Tentative dates for the exams will be given in class.

Problem Sets

Problem solving is essential to successful completion of this course. With this in mind, a problem set for (approximately) each chapter we cover in class will be assigned (approx. 10 in total). Grades for each problem set are on an all-or-nothing basis. If you make an honest attempt at each problem in the problem set, you will get full credit for that assignment. *However, failure to attempt all of the problems in the problem set will result in no credit for that assignment.* You are encouraged to work in groups, however each student must turn in his/her own assignment to get credit. Due dates of assignments will be announced in class and displayed in Canvas, and can be turned in via Canvas (preferred), email, or hard copy. Please do not submit any electronic files in Apple iWork format (Pages, Numbers, or Keynote). No late problem sets will be accepted.

Microsoft Office is available on the computers in the Economics Department computer lab (Pray-Harrold room 717). Also, all EMU students can download a copy of Microsoft Office onto their personal machine at https://www.emich.edu/it/help/licensed_software.php.

Note that I do not provide detailed feedback by writing comments individually on your problem sets. I do, however, provide a detailed answer key for each problem set. You're responsible for going over the answer key, comparing it to what you turned in, and understanding the differences.

Empirical Project

The empirical project is designed to give students experience with estimating growth regressions in R. The project requires students to declare a research question and research hypothesis, collect the data, manipulate and clean the data, estimate growth regressions to test the research hypothesis, report and interpret the results. Detailed instructions for this assignment will be posted on Canvas. I highly suggest you get started working on this assignment immediately to allow yourself sufficient time to complete this project.

Classroom Conduct

Any successful learning experience requires mutual respect. Neither instructor nor student should be subject to behavior that is rude, disruptive, intimidating, or demeaning. Views may differ on what counts as rudeness or courtesy. If you are not sure what constitutes good conduct in this classroom, ask the instructor. The instructor has primary responsibility for and control over classroom behavior and maintenance of academic integrity.

Students are expected to adhere to the standards and expectations detailed in the Student Handbook. In addition, cell phones, side conversations, tardiness, foul language, and the use of open laptops and ipads/tablets for purposes other than for class will not be tolerated. These are very disruptive to students and if the problem persists I will ask you to leave. If you are caught cheating I will give you a zero for that assignment/exam and if the problem persists I will take further action.

Disability Concerns

It is my goal that this class be an accessible and welcoming experience for all students, including those with disabilities that may affect their learning in this class. If you believe you may have trouble participating or effectively demonstrating learning in this course, please meet with me (with or without an accommodation letter from the Disability Resource Center) to discuss reasonable options or adjustments. During our discussion, I may suggest the possibility/necessity of your contacting the DRC (240 Student Center; (734) 487-2470; swd_office@emich.edu to talk about academic accommodations. You are welcome to talk to me at any point in the semester about such issues, but it is best if we can talk at least one week prior to the need for any modifications.

Enhancing Student Skills

The University Writing Center (115 Halle Library; 487-0694) offers one-to-one writing consulting for undergraduate and graduate students. The UWC also has several satellite locations across campus (in Owen, Marshall, Pray-Harrold, and Mark Jefferson). For more information see the UWC web site: https://www.emich.edu/uwc/

The Academic Projects Center (116 Halle Library) also offers one-to-one writing consulting for students, in addition to consulting on research and technology-related issues. Additional information about the APC can be found at https://www.emich.edu/apc.

University Policies

In addition to the articulated course specific policies and expectations, students are responsible for understanding all applicable University guidelines, policies, and procedures. The EMU Student Handbook is the primary resource provided to students to ensure that they have access to all University policies, support resources, and students' rights and responsibilities. Changes may be made to the EMU Student Handbook whenever necessary, and shall be effective immediately, and/or as of the date on which a policy is formally adopted, and/or on the date specified in the amendment. Please note: Electing not to access the link provided below does not absolve a student of responsibility. For questions about any university policy, procedure, practice, or resource, please contact the Office of the Ombuds: 248 Student Center, (734) 487-0074, emu_ombuds@emich.edu, or visit the website: http://www.emich.edu/ombuds

University course policies link: http://www.emich.edu/studenthandbook/policies/academic.phpuniv

University Library

Research support is available to all students, 24/7. This includes getting started with research, identifying sources to search, developing search strategies, evaluating resources, and more. See https://www.emich.edu/library/help/ask.php for all of the ways in which you can get help with research. Some University Library services have changed, and may continue to change, in response to the pandemic.

Please check for current information at https://www.emich.edu/library/news/covid.php.

International Student Resource Center

International Student Resource Center (200 Alexander Building) is a service of the World Languages Department for EMU students who need help with their non-native English language for academic assignments. Help is provided for reading and comprehension, listening and note-taking, improvement of grammatical accuracy, compositions, study skills, and conversation. Note, this is not the Office of International Students.

Student and Exchange Visitor Statement (SEVIS)

The Student Exchange Visitor Information System (SEVIS) requires F and J students to report numerous items to the Office of International Students & Scholars (OISS))

Title IX

Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex under any education program or activity receiving federal financial aid. Sexual assault and sexual harassment is a form of sex discrimination prohibited by Title IX. What you need to know about Title IX

Tentative Topics to be Covered

Mathematical Review: Jones and Vollrath: Appendix A

I. Introduction: The Facts of Economic Growth

- Jones and Vollrath: Chapter 1

II. The Neoclassical Growth Model

- 1. The Solow Model
 - Jones and Vollrath: Chapter 2

2. Empirical Applications of Neoclassical Growth Models

- Jones and Vollrath: Chapter 3

Midterm 1

III. Endogenous Growth Model

- 1. The Economics of Ideas
 - Jones and Vollrath: Chapter 4
- 2. The Romer Model
 - Jones and Vollrath: Chapter 5 (pages 97-117)

3. The Schumpeterian Model

- Jones and Vollrath: Chapter 5 (pages 119-135)

4. The AK Model

- Jones and Vollrath: Chapter 9

 $Midterm \ 2$

IV. Growth and Development

- Jones and Vollrath: Chapter 6

V. Social Infrastructure

- Jones and Vollrath: Chapter 7

VI. Population and Sustained Economic Growth

- Jones and Vollrath: Chapter 8

VII. Understanding Economic Growth

- Jones and Vollrath: Chapter 11

Final Exam