The Growth and Development of Nations in the Global Economy

Economic historian Richard Easterlin writes that

Most people today are better fed, clothed and housed than their predecessors two centuries ago. They are healthier, live longer, and are better educated. Women’s lives are less centered on reproduction and political democracy has gained a foothold … [t]he last 200 years has shown the greatest advance in the conditions of the world’s population ever achieved in such a brief span of time.


Despite these achievements, over 1.2 billion people live on less than $1/day (a figure that has continued to modestly increase over the last decade), and income inequality is on the increase almost everywhere in the world. Controversy about free trade, the new global economy, and for whom these things work has been perhaps never been higher.

Understanding these controversies requires delving into key questions about the forces, strategies, and policies that shape the growth and development of nations in a global economy. After a brief survey of the global economic landscape and the patterns of growth and living standards found within it, this course focuses on three questions. First, what are the key economic determinants of growth and technological change and how do they contribute to the convergence or divergence of standards of living? Second, how does the global push for freer trade influence patterns of convergence or divergence among nations? Finally, how do these same forces of freer trade and technological change shape the distribution of income among nations?

In this course, we will use economic theory, computer simulations, and historical data to better understand the forces that shape the wealth and well-being of nations and people in the world around us. Throughout the course, we will connect the conceptual and theoretical discussion with real experience drawn from around the globe. While the course is centered on economic models and thinking, we will do our best to make these things accessible.

In addition to the subject matter outlined above, this course is also designed to impart a basic statistical literacy. Problem sets will be used to develop and put into immediate practice statistical concepts by using real data to examine substantive issues under discussion in the lectures and readings. While in no way intended to substitute for a full course in statistics, students completing this course will have an understanding of basic statistics, a working knowledge of available data on the global economy, and the ability to use spreadsheet software packages. Discussion sections will be devoted to computer, statistical and software issues.

The prerequisite for the course is an introductory economics course, such as Economics 101 or 102 or Agricultural Economics 215.
Required Texts

The following required books are available for purchase at University Bookstore:

*Economic Growth*, David Weil, Addison Wesley (2005). Readings from this book are noted as **WEIL** on the syllabus below.


A Xeroxed packet of other required readings is available for purchase at the Underground Textbook Exchange, 664 State Street. The Tina Rosenberg article will be on the course web page and can also be accessed through the UW’s electronic newspaper collection.

Course Web Page

Lecture notes, problem sets, data sets, answer sheets and other material for the course will be posted on the course web page: [http://www.aae.wisc.edu/aae374](http://www.aae.wisc.edu/aae374).

Office Hours and Contact Information

<table>
<thead>
<tr>
<th>Michael Carter</th>
<th>Laura Schechter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mondays: 4:00-5:00 p.m.</td>
<td>Tuesdays: 1:00-2:30 p.m.</td>
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<tr>
<td>Thursdays: 1:00-2:30 p.m.</td>
<td>Fridays: 3:30-4:30 p.m.</td>
</tr>
<tr>
<td>421 Taylor Hall</td>
<td>417 Taylor Hall</td>
</tr>
<tr>
<td><a href="mailto:mrcarter@wisc.edu">mrcarter@wisc.edu</a></td>
<td><a href="mailto:lschechter@wisc.edu">lschechter@wisc.edu</a></td>
</tr>
<tr>
<td>263-2478</td>
<td>262-9482</td>
</tr>
</tbody>
</table>

Sonya Ravindranath

Wednesdays: 8:30-10:30 a.m.

320 Taylor Hall

ravindranath@wisc.edu

265-7892

Course Requirements

The workload for this course will be heaviest in the first part of the semester. Problem sets will comprise a significant part of your grade. You are welcome to discuss the problems sets with each other and to work together on the excel- and gauss-based computer programs. However, the written work you hand in must be yours alone. Take your computer results home (or off to a corner) and write up your own answers. Credit will not be given for problem sets that are multiple printings of the same answers.

There will be two one-hour exams. The first will be a conventional, in-class mid-term. The second will be during the final exam period and will focus on the last half of the course. Finally, you will also be asked to write one short (1 to 2 page) reaction paper in response to an assigned
article that discusses the globalization controversy. The goal of this paper is to engage you in the material and have you prepared for in-class discussion of the article.

The specific point breakdown for the course will be as follows:

- 7 Problem Sets (equally weighted—combined will be worth 55% of total grade)
- 1 Reaction Paper (worth 5% of total grade)
- 2 Exams (equally weighted—combined will be worth 40% of total grade)

Problem Sets and the Reaction Paper will NOT be accepted after the due date.

Assignment, Review Session and Exam Schedule

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Date Available</th>
<th>Date Due</th>
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<tbody>
<tr>
<td>Reaction Paper 1: Rosenberg’s “The Free Trade Fix”</td>
<td>7 Sept</td>
<td>12 Sept</td>
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<tr>
<td>Problem Set 1: The Wealth and Heterogeneity of Nations</td>
<td>14 Sept</td>
<td>21 Sept</td>
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<tr>
<td>Problem Set 2: Convergence and Divergence in the Global Economy</td>
<td>21 Sept</td>
<td>28 Sept</td>
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<tr>
<td>Problem Set 3: Population, Human Capital</td>
<td>5 Oct</td>
<td>12 Oct</td>
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<tr>
<td>Problem Set 4: Total Factor Productivity and Other Sources of Growth</td>
<td>19 Oct</td>
<td>26 Oct</td>
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<tr>
<td>Review Session, Room B-30 Taylor Hall, 2 p.m.</td>
<td>Saturday, 29 Oct</td>
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<tr>
<td>EXAM 1 (in class)</td>
<td></td>
<td>31 October</td>
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<tr>
<td>Problem Set 5: Trade and Growth in a North-South Model</td>
<td>9 Nov</td>
<td>16 Nov</td>
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<td>Problem Set 6: Increasing Returns &amp; the Reproduction of “Core-Periphery” Structure</td>
<td>16 Nov</td>
<td>30 Nov</td>
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<td>Problem Set 7: Changing Patterns of Inequality in the Global Economy</td>
<td>30 Nov</td>
<td>7 Dec</td>
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<tr>
<td>Review Session, Room B-30, Taylor Hall, 8 p.m.</td>
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<tr>
<td>EXAM 2, Room TBA, 7:25 p.m.</td>
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<td>16 December</td>
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**Discussion Sections**

Discussion Sections will be held Thursdays, 2:30-3:20 and Fridays, 1:20-2:10 and 2:25-3:15 in the computer lab in the basement of Taylor Hall (room B4). Most discussion sections will be keyed to particular problem sets. In addition, most will also be dedicated to teaching basic tools of computer and statistical tools of analysis needed for the different problem sets. The discussion schedule and topics are as follows:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Substantive Topic</th>
<th>Statistical Topic</th>
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<tbody>
<tr>
<td>8/9 September</td>
<td>--</td>
<td>Functions, Graphs and Excel</td>
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<tr>
<td>14/15 September</td>
<td>P-Set 1</td>
<td>Visual Representation of Distributions</td>
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<tr>
<td>22-23 September</td>
<td>P-Set 2; calculating growth rates</td>
<td>Representing Distributions with Numbers (measures of central tendency)</td>
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<tr>
<td>29-30 September</td>
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<td>Representing Distributions with Numbers (measures of dispersion)</td>
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<td>6-7 October</td>
<td>P-Set 3</td>
<td>Time plots and conditional analysis</td>
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<td>13-14 October</td>
<td>Review of Growth Theory</td>
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<td>20-21 October</td>
<td>P-Set 4</td>
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<tr>
<td>27-28 October</td>
<td>Exam 1 Review</td>
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<td>3-4 November</td>
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<td>Causality &amp; Correlation</td>
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<td>10-11 November</td>
<td>P-Set 5</td>
<td>Gauss Software</td>
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<td>17-18 November</td>
<td>P-Set 6</td>
<td>Regression 1</td>
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<td>1-2 December</td>
<td>P-Set 7</td>
<td>Regression 2</td>
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<tr>
<td>8-9 December</td>
<td>Exam 2 Review</td>
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Syllabus and Course Schedule

I. INTRODUCTION TO THE GROWTH AND WEALTH OF NATIONS IN THE GLOBAL ECONOMY (7-9 September)


WEIL: Chapter 1


II. GROWTH, AND THE LIMITS TO GROWTH, THROUGH FACTOR ACCUMULATION

A. Harrod-Domar and Pure Physical Capital (14 September)

WEIL: Chapter 2
EASTERLY: Chapter 2

B. Physical Capital (Exogenous Simple Solow Model) (19-21 September)

WEIL: Chapter 3
EASTERLY: Chapter 3

C. Population (26-28 September)

WEIL: Chapter 4
EASTERLY: Chapter 5

D. Human Capital (Health and Education) (3-5 October)

WEIL: Chapter 6
EASTERLY: Chapter 4

III. GROWTH THROUGH TECHNOLOGICAL CHANGE

A. Technology and Growth and Convergence in the West (10 October)


B. Exogenous Technology and Technology Transfer (12-17 October)

WEIL: Chapter 7.1 and 7.4, Chapter 8, Chapter 9.1
C. Increasing Returns to Scale and “Endogenous Growth” (10/19-10/24)

WEIL: Chapter 9.3
EASTERLY: Chapter 8 and Chapter 9

D. Technological Change in the Contemporary Global Economy (26 October)


**EXAM 1, IN CLASS (31 October)**

IV. TRADE, TRADE LIBERALIZATION AND GROWTH

A. The Basics of Comparative Advantage (2-9 November)


B. North-South Trade and Comparative Advantage Based on Factor Endowments (14 November)


C. Trade and the Dynamics of Comparative Advantage in the Presence of Increasing Returns and Endogenous Growth (16 November)


D. Trade Policy in the Contemporary Global Economy (21-23 November)


V. TRADE AND TECHNOLOGICAL CHANGE AND INCOME DISTRIBUTION IN AN INTEGRATED WORLD ECONOMY

A. Growth and Trade on Inequality (28-30 November)

WEIL: Chapter 13.1 and 13.2


B. Inequality’s effects on Growth (5-7 December)

**WEIL:** Chapter 13.3  
**EASTERLY:** Chapter 13


VI. GOVERNANCE, SOCIAL CAPITAL AND CORRUPTION (12 December)

**WEIL:** Chapter 12.3 and Chapter 14  
**EASTERLY:** Chapter 12

VII. CONCLUSION (14 December)


**EXAM 2, SUMMARY PERIOD (16 December)**