SEMINAR DESCRIPTION

The seminar is designed to provide advanced graduate students with a thorough understanding of selected regional economic theories and techniques and with experience in using alternative socioeconomic impact assessment models and related regional techniques on microcomputers. Discussions will be held on particular theoretical modeling and economic issues; linkages among theories, accounts, and policies; relationships between national and regional economic structures; and methods of adjusting and estimating regional input-output accounts and tables. Examples from the Boston area and other U.S. cities/regions will be used to illustrate points throughout the seminar. We will also examine how such models are used in other countries. New material on analyzing regional development issues will be covered.

We will use a state-of-the-art regional microcomputer package, Regional Economic Models, Inc. (REMI), by George I. Treyz, that the Boston Redevelopment Authority (BRA) staff use for their investment-impact analyses. Regional analysts throughout the United States make extensive use of this package.

Students will do three problem sets. During the first part of the seminar, we will provide students with appropriate data for them to analyze and evaluate the Massachusetts regional economy and to test the computer-software package. During the last part of the seminar, students will extend their initial analysis to assess socioeconomic impacts of Boston investment projects, the exact projects to be selected by members of the class in collaboration with the BRA staff. Students will give a formal presentation to the BRA research staff at the end of the semester.
The weights for the final grade are as follows:
- Problem set 1 20%
- Problem set 2 25%
- Problem set 3 30%
- Class presentations 15%
- Preparation and presentation to the BRA 10%

The following scores, which will be weighted and averaged for the term, will be given on the problem sets:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>95-100</td>
<td>A</td>
</tr>
<tr>
<td>90-94</td>
<td>A-</td>
</tr>
<tr>
<td>85-89</td>
<td>B+</td>
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<tr>
<td>80-84</td>
<td>B</td>
</tr>
<tr>
<td>75-79</td>
<td>B-</td>
</tr>
<tr>
<td>70-74</td>
<td>C+</td>
</tr>
<tr>
<td>65-69</td>
<td>C</td>
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</table>

**Disabilities**
If you have a documented disability, or any other problem you think may affect your ability to perform in class, please see us early in the semester so that arrangements may be made to accommodate you.

**Academic Misconduct**
Plagiarism and cheating are both academic crimes. Never
1. turn in an assignment that you did not write yourself,
2. turn in an assignment for this class that you previously turned in for another class, or
3. cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension from MIT. Please see us if you have any questions about what constitutes plagiarism. Anyone caught cheating will be reported to the provost in line with recognized university procedures.

**OFFICE HOURS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Room</th>
<th>Extension</th>
<th>Office Hours</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen R. Polenske</td>
<td>9-535</td>
<td>3-6881</td>
<td>Tues 2:00-4:00pm</td>
<td><a href="mailto:krp@mit.edu">krp@mit.edu</a></td>
</tr>
<tr>
<td>Joaquim Guilhoto</td>
<td>9-549F19-429C</td>
<td>4-6685</td>
<td>Thur 2:00-4:00pm</td>
<td>TBA</td>
</tr>
<tr>
<td>Wanli FANG</td>
<td>9-549</td>
<td></td>
<td></td>
<td><a href="mailto:guilhoto@mit.edu">guilhoto@mit.edu</a></td>
</tr>
</tbody>
</table>

If needed, appointments can be arranged at times other than the scheduled hours.

**SUGGESTED BOOKS TO PURCHASE**


Ronald E. Miller and Peter D. Blair. 2009. *Input-Output Analysis: Foundations and*


Required readings will be available on the 11.482 Stellar website. We will provide more information in the first meeting of the seminar.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Guest Speaker/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 8</td>
<td>Introduction and Overview of a Theoretical Basis for Regional Economic Analyses</td>
<td>Guest Speaker: Dr. Nicolas O. Rockler</td>
</tr>
<tr>
<td>September 15</td>
<td>Background on Regional Modeling and Modeling Assumptions/ Economic Base Studies</td>
<td></td>
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<tr>
<td>September 22</td>
<td>Background on Input-Output Equations and Data Preparation for the REMI Model</td>
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<tr>
<td>September 24</td>
<td>Alternative Types of Regional Input-Output Models and Multipliers</td>
<td>Guest Speaker: Glen Weisbrod, President, Economic Development Research Group, Boston, MA.</td>
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<tr>
<td>October 6</td>
<td>Regional Economic Analyses and Forecasting Meet BRA staff during week</td>
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<tr>
<td>October 13</td>
<td>Regional Econometric Modeling, Part I</td>
<td></td>
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<tr>
<td>October 20</td>
<td>Regional Econometric Modeling, Part II</td>
<td></td>
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<tr>
<td>October 27</td>
<td>Model Comparisons</td>
<td></td>
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<tr>
<td>November 3</td>
<td>Massachusetts Economy, Case Study</td>
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<td>November 10</td>
<td>Green Buildings</td>
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<tr>
<td>November 17</td>
<td>Green Transportation</td>
<td></td>
</tr>
<tr>
<td>November 24</td>
<td>Thanksgiving—no classes</td>
<td></td>
</tr>
<tr>
<td>December 1</td>
<td>Formulating and Applying Dynamic Economic Models</td>
<td></td>
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<tr>
<td>December 8</td>
<td>Use of Regional Models in Policy Analyses exact day and time TBA Seminar for Client: Socioeconomic Impact Evaluation</td>
<td></td>
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<tr>
<td>PS1, Part I</td>
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<td>PS3</td>
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</table>
REGIONAL SOCIOECONOMIC IMPACT ANALYSIS AND MODELING
Syllabus

September 8. INTRODUCTION AND OVERVIEW OF A THEORETICAL BASIS FOR REGIONAL ECONOMIC ANALYSIS


Suggested Readings


Oosterhaven, Jan and J. Paul Elhorst. 2002. “Methods of Interregional and Regional Analysis” (Book Review) Economic Systems Research, 14 (2): 205-207. (This volume of the journal will be on reserve at Rotch.)

September 15.BACKGROUND ON REGIONAL MODELING AND MODELING ASSUMPTIONS/ ECONOMIC BASE STUDIES


Suggested Readings


September 22. Background on Input-Output Equations and Data Preparation for Remi Model


Suggested Readings


September 29. ALTERNATIVE TYPES OF REGIONAL INPUT-OUTPUT MODELS AND MULTIPLIERS

Guest Speaker: Glen Weisbrod, President, Economic Development Research Group, Boston, Massachusetts.


Suggested Reading


October 6. REGIONAL ECONOMIC ANALYSES AND FORECASTING


October 13. REGIONAL ECONOMETRIC MODELING, PART I


**Suggested Reading**


**October 20. REGIONAL ECONOMETRIC MODELING, PART II**


**October 27. MODEL COMPARISONS**


November 3. MASSACHUSETTS ECONOMY: Case Study


Suggested Reading


Readings related to the client’s interests will be made available during the semester.

November 10. GREEN BUILDINGS


Green Communities Act.  


November 17. GREEN TRANSPORTATION
Clean Energy Biofuels Act.
http://www.mass.gov/?p=home&L=1&L0=Home&sid=Agov3&b=pressrelease&f=080728_Clean_Energy_Biofuels_Act&csid=Agov3


**December 1. FORMULATING AND APPLYING DYNAMIC REGIONAL ECONOMIC MODELS IN POLICY ANALYSIS**


TBA ORGANIZATION AND PREPARATION OF PRESENTATION FOR SEMINAR TO CLIENT

TBA SEMINAR FOR CLIENT'S RESEARCH STAFF: SOCIOECONOMIC IMPACT EVALUATION.

* Book is on reserve. It is out-of-print. Entire book is useful for the seminar.
** Book is on reserve.
+ Book is out-of-print. Copies of relevant pages are on the Stellar Website and the book is on reserve at Rotch library.