Prerequisites

ECO5114 (Applied Microeconomics I).

Course Description

This course offers students an opportunity to connect basic economic theory to empirical applications. All empirical applications are motivated by the theoretical frameworks discussed in class. All econometric applications require the student to use either Stata, R, or SAS. While the student is free to choose the software to use, only Stata is considered in the classroom. Most of the economic theory is based on the basic constrained optimization problem and focuses on topics in labor economics. Students need a basic understanding of differential calculus to understand the constrained optimization problem. The class starts with a math review that covers the required mathematical tools. Students also need a good understanding of modern econometrics theory to be able to discuss the properties of estimators. The economic implementations include the basic Ordinary Least Squares, Instrumental Variables, and Difference-in-Differences among others.

Textbook (Required)

Students will use the McGraw Hill Connect for:


This material is part of the FSU Follett Access Opt-Out Program. To access this program’s portal use the link:

- [https://ACCESSPortal.follett.com:443/OptIn/0208](https://ACCESSPortal.follett.com:443/OptIn/0208)
Additional Textbooks (Not Required)

Students can benefit from consulting the following textbooks:


Students are not required to purchase these books and previous editions are helpful as well.

Assessment

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>10 %</td>
</tr>
<tr>
<td>Quizzes</td>
<td>12 %</td>
</tr>
<tr>
<td>Data projects</td>
<td>18 %</td>
</tr>
<tr>
<td>Midterm Exam 1</td>
<td>18 %</td>
</tr>
<tr>
<td>Midterm Exam 2</td>
<td>18 %</td>
</tr>
<tr>
<td>Final Exam</td>
<td>24 %</td>
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Grading Scale

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-100</td>
<td>A</td>
</tr>
<tr>
<td>90-93</td>
<td>A−</td>
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<tr>
<td>87-89</td>
<td>B+</td>
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<tr>
<td>84-86</td>
<td>B</td>
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<tr>
<td>74-76</td>
<td>C</td>
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<tr>
<td>70-73</td>
<td>C−</td>
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<td>67-69</td>
<td>D+</td>
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<td>64-66</td>
<td>D</td>
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<tr>
<td>61-63</td>
<td>D−</td>
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<tr>
<td>0-60</td>
<td>F</td>
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</tbody>
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Homework

• There are four homework assignments. Each assignment corresponds to one chapter in the textbook.

• Homework assignments will be completed and submitted online through the McGraw Hill Connect website.

• Homework assignments are based on the SmartBook Assignments of the McGraw Hill Connect website.

• SmartBook Assignments are reading assignments in which students will have to read through the chapter and there are questions that correlate with the material.

• The due date for each assignment will be at 10AM seven natural days after we started covering a specific chapter.

• There is no time limit when working on these assignments, as long as it is before the due date. Students can save the progress and work on the assignment until the due date.

• There is a practice assignment. Students can complete it and receive credit for it. The credit is 25% the value of a regular assignment, and all students who take the practice assignment will receive this credit.

Quizzes

• There are four quizzes. Each quiz corresponds to one chapter in the textbook.

• Quizzes will be completed and submitted online through the McGraw Hill Connect website.

  – Students have only one attempt to complete the quiz.

  – All quizzes are timed.

• The questions in the quiz are based on the material covered in the textbook.

• Time frame to complete and submit the quiz online:

  – Once the material for a specific chapter is fully covered in the classroom, the student will have three days to complete and submit the quiz online.

  – The Instructor will announce in class and by e-mail when the three-day countdown starts.
• **Late submission:**
  
  – After three days, the quiz can be submitted but it is subject to a penalty. For each additional day after the three-day window, the student will lose 10% of the grade earned.

• Extensions to complete and submit a quiz would only be granted for cases in which the student is not capable to work on the assignment during the whole three-day window due to illness or a personal emergency.
  
  – Excused absence must be documented with the Dean of Students.
  
  – See **University Attendance Policy** below for excused absences.

**Data Projects**

• Throughout the semester, there are data projects related to the theoretical frameworks discussed in the classroom.

• The data projects are in the form of replications of tables of summary statistics and/or econometric analysis in research studies discussed in class.

• The data projects are done in teams. Students are randomly assigned into teams for each data project. The number of team members can vary depending on the complexity of the project.

• The data used for these projects would either be provided by the instructor or obtained directly by the team.
  
  – Data obtained directly by the team is from publicly available data such as the US Census or the Current Population Survey (CPS).
  
  – Obtaining data directly by the team is an opportunity get hands-on-experience on how to work with and clean real-world data sets.
  
  – All data sets consist of **micro-econometric data**, i.e. individual survey data, either cross-section or panel data.

• The number of data projects varies depending on the topics covered during the semester.

**Grading of Data Projects**

• The final grade for each data project will depend on three factors:
  
  1. The professionalism in the presentation of the report (20%)
  2. The number of questions completed (20%)
  3. The grade on the selected questions that are fully graded (60%)
Midterm Exams

Midterm exams will be completed during class time on the following days:

- Midterm Exam 1: Thursday February 9
- Midterm Exam 2: Tuesday March 28

Reviewing Graded Midterm Exams

- The Instructor will keep the Midterm Exams after these have been graded.
- Students are allowed to review their Midterm Exams within two weeks after the date when the grade of the Midterm Exam is posted online.
  - The Instructor will announce the days and times of the revision

No Make-Up for Midterm Exam

Students who have a legitimate reason for personal emergency are allowed to be exempt from one of the two midterms.

- Excused absence must be documented with the Dean of Students.
- See section University Attendance Policy on this syllabus for excused absences.

If a student misses one of the two midterm exams, the final exam will be re-weighted.

- It is necessary that students sit in at least one of the two midterm examinations, otherwise the Instructor will not have enough evidence of performance to provide a fair evaluation.
  - If personal emergencies force a student to miss both midterm examinations, the Instructor will make the necessary arrangements with that student’s Dean’s office to accommodate that student leaving the class.

Final Exam

- The final exam will be:
  - Monday May 1st at: 10:00 am - 12:00 noon
- Every student should double check this time and bring any difference in interpretation to the attention of the Instructor as soon as possible. “No-refund” airline tickets for an earlier time are not an acceptable excuse for rescheduling any exam.
Course Outline

- This is the tentative course outline. It is subject to variations.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Textbook Chapter</th>
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<tbody>
<tr>
<td>Math Review</td>
<td>–</td>
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<tr>
<td>Econometrics Review</td>
<td>–</td>
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<tr>
<td>Labor Supply</td>
<td>2</td>
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<tr>
<td>Endogeneity of OLS</td>
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<tr>
<td>Selection Bias</td>
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<td>Difference-in-Differences</td>
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<td>Measurement Error</td>
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<tr>
<td>Labor Demand</td>
<td>3</td>
</tr>
<tr>
<td>Endogeneity of OLS</td>
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<tr>
<td>Instrumental Variables</td>
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<tr>
<td>Difference-in-Differences</td>
<td></td>
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<tr>
<td>Synthetic Controls</td>
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<tr>
<td>Education</td>
<td>6</td>
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<tr>
<td>Omitted Variable Bias</td>
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<tr>
<td>Post-Schooling Investment in Human Capital</td>
<td>7</td>
</tr>
<tr>
<td>Twin Studies</td>
<td></td>
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<tr>
<td>Instrumental Variables</td>
<td></td>
</tr>
</tbody>
</table>

- Topics in *italics* are some of the main econometrics topics discussed while covering the empirical implementations covered on each chapter. The list is not exhaustive.

- While some of these topics are described in the textbook, the student might find the additional textbooks indicated above useful for these topics.

- The additional econometrics topics will be included in the exams.

- The material covered in both econometrics and math reviews will also be included in the exams.
In-Class Communication:

All cell phones or any type of personal communication device must be turned off in class. If a student is expecting an emergency call prior to class, that student must let the Instructor know.

University Attendance Policy:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Please note: Because students who test positive for COVID-19 are required to self-isolate for ten (10) days, positive COVID-19 test results, required isolation orders, or documentation of contact tracing should all be considered valid documentation for missing class.

Academic Honor Policy:

The Florida State University Academic Honor Policy outlines the University’s expectations for the integrity of students’ academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to “. . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University.” (Florida State University Academic Honor Policy, found at [http://dof.fsu.edu/honorpolicy.htm](http://dof.fsu.edu/honorpolicy.htm))

Class Lecture Recordings

Course Recording Permitted

In this class, consistent with state law and university policy, students are permitted to make recordings of class lectures for personal use only. As noted, sharing, posting, or publishing classroom recordings may subject you to honor code violations and legal penalties associated with theft of intellectual property and violations of other state law. Moreover, students and educators have expressed concern that recording classroom activities may negatively impact the learning experience for others, especially in classes that involve questions, discussion, or participation. To protect a learning environment in which everyone feels free to experiment with ideas, we ask you refrain from recording in ways that could make others feel reluctant to ask questions, explore new ideas, or otherwise participate in class. Students must monitor their recording so that they do not include participation by other students without
permission. Students with disabilities will continue to have appropriate accommodations for recordings as established by the Office of Accessibility Services.

Course Recording Not Permitted

In this class, consistent with state law and university policy, you may not make recordings of classroom activities without the permission of the instructor. This policy applies to both audio and video recordings.

Americans with Disabilities Act:

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

To receive academic accommodations, a student:

1. must register with and provide documentation to the Office of Accessibility Services (OAS);

2. must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and,

3. should communicate with the instructor, as needed, to discuss recommended accommodations. A request for a meeting may be initiated by the student or the instructor.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided. This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Office of Accessibility Services
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
oas@fsu.edu
https://dsst.fsu.edu/oas
Confidential Campus Resources

Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following:

**Victim Advocate Program**

University Center A,
Room 4100, (850) 644-7161,
Available 24/7/365,
Office Hours: Monday-Friday 8am-5pm

[https://dsst.fsu.edu/vap](https://dsst.fsu.edu/vap)
Counseling & Psychological Services
Askew Student Life Center, 2nd Floor
942 Learning Way
(850) 644-8255 / (850) 644-TALK
https://counseling.fsu.edu/

University Health Services
Health and Wellness Center,
(850) 644-6230
https://uhs.fsu.edu/

FSU Food Pantries
FSU has established Food Pantries where students in need can pick up non-perishable food items freely and anonymously. The Food Pantry is available during the pandemic, and it is free and open to all students to take what they need. Donations for collection of non-perishable food items are encouraged. For more information about the Tallahassee Food Pantry, visit the Tallahassee Food for Thought Pantry website (https://dos.fsu.edu/resources/food-for-thought-pantry). The pantry is located at University Center A, Suite 4148. If you have questions or concerns, contact the Department of Student Support and Transitions at dsst@fsu.edu or (850) 644-2428.

Syllabus Change Policy
Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.