Overview:
This course is intended for graduate and advanced undergraduate students in economics. It is an introduction to the statistical methods used in empirical studies. A rigorous exposition of the theory behind econometric techniques will help students understand the issues raised in different published papers. Practical applications will prepare them to use these methods in their own projects.

Office Hours:
Tuesday and Thursday. To ensure a one-on-one session during office hours, please send me an email one day in advance to make an appointment.

Lectures:
The bulk of the class material will come from in-class notes. Much, but not all, of the in-class material will be posted as “lecture notes” on SIU online. These notes will give a solid framework for the lectures, but are by no means a substitute for the lecture.

In-class exercises and homework practice problems: The most efficient way to learn econometrics is to solve many problems that test one’s understanding. To this end, I will distribute a set of exercises each week that will review the application of the material covered in class. We will solve these exercises together. If you miss class, make sure you get a copy of these exercises from one of your classmates since I will not be posting them later on.

Also, after each class I will post a set of practice problems with answers. These will not be graded, obviously, since I will give you the answers. I would urge you, however, to work on the practice problems on the week that they are assigned since the material will still be fresh on your mind. The
midterms and final exams will be heavily based on exercises that are very similar to the in-class and practice exercises.

_Laptops:_ Laptops are not permitted during lecture. This means your laptop computer _may not_ be open on your desk during the lectures. Also, please turn off cellular phones and pagers before entering class

**Grading:**
Midterms (23% each)
Final Exam (24%)
Econometrics Project (25%)
Project Presentation (5%)

“Cheat sheet”: Both exams are closed-book exams, however, you are allowed to have a “cheat sheet” with anything you want to put on it. For the midterm exams you are allowed one two-sided, letter size sheet of paper (American size). For the final you are allow two two-sided, letter size sheets of paper.

_Exam Make-up Policy:_ there will be no make-up exams. If for some extraordinary reason you cannot make it to a midterm or the final, then you may take the exam ahead of time if you discuss this with me first. **No one will be able to take a test after the assigned time.** If you happen to miss a midterm exam, then its weight will be transferred to the final exam. Note that this is not in your best interest since the final exam by definition is a harder test.

_In class participation:_ In class participation will be the decisive factor if you are in the margin between grades. This means, good class participation can only help you!

**Software**
We will be using Eviews for most of the practical applications and you are encouraged to use this software for your project econometric analysis. However, if you are already comfortable with another econometric package (STATA, Minitab, SPSS, SYSTAT or Matlab) you are free to use it if you prefer.
Outline
This is a tentative outline of the topics that I will cover each lecture.

Week 1: Review of Probability and Statistics
Week 2: Introduction to Econometrics, Simple Regression Model
Week 3: Multiple Regression Analysis: Estimation
Week 4: Quiz 1 (02/03)
Multiple Regression Analysis: Estimation and Inference
Week 5: Multiple Regression Analysis with Qualitative Information: Dummy Variables
Week 6: Midterm Exam 1 (02/17), 1st Project review
Week 7: Dummy Variables (cont.)
Week 8: Quiz 3 (03/03)
Violations of the OLS assumptions: Heteroskedasticity
Week 9: Spring Break
Week 10: More on Specification and Data Problems
Week 11: Basic Regression Analysis with Time Series Data
Week 12: Further Issues in Using OLS with Time Series Data (chapter 15)
Week 13: Midterm Exam 2 (04/07), 2nd Project review
Week 14: Pooling Cross Sections across Time: Simple Panel Data Methods
Week 15: Quiz 3 (04/21)
Advanced Panel Data Methods
Week 16: PRESENTATIONS

FINAL EXAM (please refer to official SIU calendar)