

INTRODUCTION TO ECONOMETRICS
ECON 419
Section 001
Tuesday and Thursday 0925-1040
ECTR 108
(TCFE 132 Aug. 22-until TBA)

Prof. Frank Hefner
Fall 2017
Office Hours: 11:00-12:30 Tuesdays and Thursdays
and by appointment

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ECON 419 Introduction to Econometrics (3) An introduction to the use of economic theory, statistical analysis, and mathematical model building to explain economic relationships.

PREREQUISITES: ECON 200, ECON 201, 6 credit hours of 300-or 400-level ECON courses, MATH 104 or 120, Math 105 or 250; MATH 350 or DSCI 232; or permission of the instructor.

TEXTS:

Econometric Models and Economic Forecasts, 4th edition
Pindyck and Rubinfeld, McGraw-Hill/Irwin, 1998

This text is available on Amazon through a number of book sellers. Several copies will be put on reserve in library for overnight checkout.

LEARNING GOAL:

Econometrics is a set of tools used to estimate and test economic relationships. The methods taught in this course are applicable in business (accounting, finance, marketing, and management) and in many other social science disciplines. The aim of this course is to provide the students with an econometric toolkit to engage in applied analysis. The hope is that you will gain an overview of econometrics and develop some “intuition” about how economic models work. The emphasis of this course will be on understanding the tools of econometrics and applying them in practice, with particular emphasis on practice. Upon successful completion of this course, students should be able to use a statistical/econometric computer package to estimate an econometric model and be able to report the results in a non-technical and literate manner.

"An economically trained person is likely to spend most of his or her working life writing papers, reports, memoranda, proposals, columns, and letters. Economics depends more on writing ... than on the mathematics and statistics usually touted as the tools of the trade."

Science Education Resource Center (SERC) at Carleton College
(<http://serc.carleton.edu/sp/index.html>)

Software used in this course includes EXCEL, MINITAB, and EVIEWS.

EViews is loaded on the computers in the library and in our computer lab. In addition, you may get your own version from the company.

EViews 9.5 Student Version & Student Version Lite

Two versions of the popular Student Version are available to fit your needs. EViews 9.5 Student Version and a free EViews 9.5 Student Version Lite.

For our purposes, the free version will be adequate.

One final goal:

Econometrics can be a fun course for both teacher and student. (from Stock and Watson)

GRADING AND EXAMS:

Midterm	(October 5)	100
Homework		100
Final Exam	(December 7: 0800-1100)	200
Paper	(December 4)	200

Grading: Grading Scale	A	= 90 - 100 %
	B+	= 87 - 89
	B	= 80 - 89
	C+	= 77 - 79
	C	= 70 - 79
	D	= 60 - 69
	F	< 60

Grades are not curved.

Note on Final Date and Time: The Cougar Trail lists the official date and time. Location is the regular classroom.

E-MAIL: I can be easily reached by e-mail and will answer questions by e-mail also. Appointments should be scheduled by e-mail. Assignments will not be accepted by e-mail.

ATTENDANCE: You are expected to attend class. Attendance is not mandatory. However, students who miss class regularly typically do not pass this course. Late assignments are not accepted and will result in a grade of zero. Missed papers and exams may be completed with an approved absence memo from the Office of the Associate Dean of Students at 67 George Street- Absence Memo Office (953-3390) (<http://studentaffairs.cofc.edu/services/absence.php>)

GENERAL INFORMATION: Course policies may be changed during the semester. Any changes will be announced in class. You are responsible for all material covered in class. Lectures may or may not follow the text. Additional reading material may be assigned during the class. You will be tested on assigned reading and lecture material.

Computer assignments will consist of applied econometric work. Students are encouraged to work together on the empirical assignments. However, all students must write up their answers independently of each other.

CLASS DECORUM: Normal classroom behavior is expected. I do ask that students not wear hats during the lecture. Please turn off all pagers, beepers, and cell phones before class

GENERAL CONTENT:

- Review of Descriptive Statistics
- Probability Distributions
- Statistical Inference: Estimation
- Hypothesis Testing
- Simple Regression
- Multiple Regression
- Further Techniques in Regression Analysis
 - Dummy Variables
 - Binary Choice
 - Functional Forms
 - Distributed lag models
 - Forecasting
- Problems in Regression Analysis
 - Multicollinearity
 - Heteroscedasticity
 - Autocorrelation
 - Errors in Variables
- Time-Series (if time permits)
 - ARIMA
 - Nonstationary series
 - Testing for Unit Root
 - Cointegration

NOTE: I reserve the right to add or subtract topics as the course develops. Not all topics will be covered in the same detail. Time constraints may cause some topics to be omitted.

TERM PAPERS: Details will be covered in class.

Note: The syllabus may be modified as events warrant.

Generic Syllabus Material

ECON 419

1. **PREREQUISITES:** Senior standing; ECON 200, 201; MATH 120, 250; MATH 350 or DSCI 232; or permission of the instructor.

2. COLLEGE OF CHARLESTON HONOR CODE AND ACADEMIC INTEGRITY

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student's actions are related more to a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance.

Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the *Student Handbook* at <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

IMPACT ON GRADE IN THIS COURSE: All students are expected to adhere to the College Honor Code. This includes plagiarism. In addition to penalties that may be imposed on you by the honor board of the College of Charleston; in the case of plagiarism you will receive a grade of zero for the written component of the semester grade. In the case of other violations of academic integrity you will receive an F for the semester.

3. ATTENDANCE: Students are expected to **attend all classes**. Non-urgent/non-emergency situations should be addressed by the student during times that do not interfere with the student's course schedule, just as one would if s/he was seeking time off from an employer.

In the event that a student misses a class with a legitimate, documentable reason, that student may bring documentation to the Absence Memo Office located at 67 George Street (between Stern Center and Glebe Street) where the student may fill out a form with a schedule of missed class (es), dates missed, etc. A representative from the Absence Memo Office will notify the appropriate faculty by E-mail. Any missed assignments, class work, papers, tests, etc., are to be arranged between the professor and the student. **It is important to note that the only individual who can authorize an excused absence is the professor of the missed class.**

<http://studentaffairs.cofc.edu/about/absence-memo/index.php>

Absences Relating to Disabilities

Students with physical or psychological disabilities are to contact the Office of Disability Services at 843.953.1431. Information on this office may be located at <http://disabilityservices.cofc.edu/index.php>. **Please note:** If absences become excessive, regardless of the reason, it is important you schedule an appointment with Undergraduate Academic Services Office (843.953.5674) to discuss academic issues.

Temporary Injury Affecting Mobility or Use of Dominate Hand or Arm

Students who experience temporary injury affecting mobility or use of dominant hand or arm should refer to the Temporary Injury webpage at <http://disabilityservices.cofc.edu/temp/index.php> for information on assistance.

4. CLASS DECORUM: Normal classroom behavior is expected. I do ask that students not wear hats during the lecture. Turn off all pagers, beepers, and cell phones before class. This means no texting during class time. No laptop computers may be used in class without the explicit permission of the instructor.

5. SPECIAL NEEDS: The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services / SNAP, located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying me as soon as possible and for contacting me one week before an accommodation is needed

If there is a student in the class who has a documented disability and has been approved to receive accommodations through the Center for Disability Services / SNAP, please come and discuss this with me during my office hours.

If you have any concerns about the class, please contact me.

6. SCHOOL OF BUSINESS LEARNING GOALS:

COMMUNICATION SKILLS: Students will demonstrate the ability, via both written and spoken word, to effectively present, critique, and defend ideas in a cogent, persuasive manner.

QUANTITATIVE FLUENCY: Students will demonstrate competency in logical reasoning and data analysis skills.

GLOBAL AND CIVIC RESPONSIBILITY: Students will be able to identify and define social, ethical, environmental and economic challenges at local, national and international levels. Students will also be able to integrate knowledge and skills in addressing these issues.

INTELLECTUAL INNOVATION AND CREATIVITY: Students will be able to demonstrate their resourcefulness and originality in addressing extemporaneous problems.

SYNTHESIS: Students will demonstrate the ability to integrate knowledge from multiple disciplines incorporating learning from both classroom and non-classroom settings in the completion of complex and comprehensive tasks.

This course emphasizes **quantitative fluency**.

The course meets the following School of Business learning goals: Communication Skills (term paper); quantitative fluency (econometrics); intellectual innovation and creativity (creative data analysis); and synthesis (term paper)

7. Center for Student Learning

I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and they are available to you at no additional cost. For more information regarding these services please visit the CSL website at <http://csl.cofc.edu> or call (843)953-5635

8. Writing Lab

I encourage you to take advantage of the Writing Lab in the Center for Student Learning (Addlestone Library, first floor). Trained writing consultants can help with writing for all courses; they offer one-to-one consultations that address everything from brainstorming and developing ideas to crafting strong sentences and documenting sources. For more information, please call 843.953.5635 or visit <http://csl.cofc.edu/labs/writing-lab/>.

9. Department of Economics Learning Goals:

Understanding Major Economic Problems

Students demonstrate an understanding of the major economic problems facing society and the policy alternatives which may be utilized to contend with these problems.

Supports Strategic Initiative 1: Enhance the undergraduate academic core.

Quantitative Fluency

Students demonstrate the ability to draw insights about economic behavior from the application of mathematical tools. Supports Strategic Initiative 1: Enhance the undergraduate academic core.

Synthesis

Students demonstrate the ability to access existing knowledge by retrieving, assembling, and organizing information on particular topics and issues in economics. Supports Strategic Initiative 1: Enhance the undergraduate academic core.

Communication Skills

Students demonstrate the ability to clearly communicate the analysis of an economic issue. Supports Strategic Initiative 1: Enhance the undergraduate academic core.

This course attempts to meet all of the Departmental learning goals. Specifically, **implementation and demonstration** of achievement will be through completions of examinations, problems, and the term paper.