

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW COURSE PROPOSAL</b> <b>Graduate Programs</b>		UGPC Approval _____ UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Economics College Business <i>(To obtain a course number, contact erudolph@fau.edu)</i>		
Prefix ECO Number 5423	<i>(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)</i> Lab Code	Type of Course Lecture	Course Title Honors Advanced Econometric Methods
Credits <i>(Review Provost Memorandum)</i> 3	Grading <i>(Select One Option)</i> Regular <input checked="" type="radio"/> Sat/UnSat <input type="radio"/>	Course Description <i>(Syllabus must be attached; see Guidelines)</i> This course is an introduction to the theory and application of econometrics with applications of econometric methods to economic theories and data at an advanced level.	
Effective Date <i>(TERM &amp; YEAR)</i> Spring 2021	Prerequisites ECO 2023*; ECO 2013*; MAC2233*; STA2023* Minimum Grade B		Corequisites Registration Controls <i>(Major, College, Level)</i>
<i>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course</i>			
Minimum qualifications needed to teach course: Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field.)		List textbook information in syllabus or here Jeffrey Wooldridge, Introductory Econometrics: A Modern Approach, 6th edition (2016), South-Western, Cengage Learning. ISBN: 9781305270107	
Faculty Contact/Email/Phone Dr. Neela D. Manage / manage@fau.edu / 7-3226		List/Attach comments from departments affected by new course Economics	

<b>Approved by</b> Department Chair <u>Steven B. Candell</u> College Curriculum Chair <u>Angela Perreault</u> College Dean <u>Kent</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____	<b>Date</b> <u>1/20/20</u> <u>2/5/20</u> <u>2/7/20</u> _____ _____ _____ _____
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Email this form and syllabus to [UGPC@fau.edu](mailto:UGPC@fau.edu) one week before the UGPC meeting.

GRADUATE COLLEGE

FEB 07 2020



Department of Economics Fall Semester 2020 Official Syllabus

ECO 5423 (CRN XXXXX)  
Advanced Econometric methods - Honors  
Fall 2020

**Professor Information**

Dr. Neela D. Manage  
Barry Kaye Hall 150  
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**Office Hours**

T Th 2:00 - 5:00 pm & by appointment

**Required Text and Materials**

1. Jeffrey Wooldridge, Introductory Econometrics: A Modern Approach, 6<sup>th</sup> edition (2016), South-Western, Cengage Learning. ISBN: 9781305270107

2. Econometric software: Students are required to use Stata for course assignments and the research project. Limited licenses (6 month or 12 month) are available for students at a discount. To order Stata software at student discount prices use the link below and select the "Stata/IC" option.

<http://www.stata.com/order/new/edu/gradplans/student-pricing/>

If you choose DVD – there is an additional charge for DVD/shipping and it will take 3-5 business days to receive. However, if you choose Download, you would receive within a few hours or the next day.

3. Journal articles on applied econometric analysis to be posted on Canvas.

**Course Description**

This course is an introduction to the theory and application of econometrics with applications of econometric methods to economic theories and data at an advanced level.

This course is cross-listed and taught concurrently with Honors Introduction to Econometrics. Those students taking this course must pay graduate tuition fees. Those students passing this course receive three hours credit towards completion of our MA degree in economics. Those students who also successfully complete the 5000 level micro and macro courses in the Economics Honors Program are immediately admitted to the MA Program in Economics with 9 hours credit toward degree completion and a GRE waiver.



### Course Prerequisites and Credit Hours

3 credit hours; Prerequisites: ECO 2013 & ECO 2023 AND STA 2023

**Note:** This syllabus is subject to change at the discretion of the instructor. All revisions will be announced in class and posted on Canvas. Students are responsible for being familiar with any revisions even if they were absent from class on the days changes were announced.

### Course Learning Objectives

After successfully completing this course students will be able to:

- Model the relationship between two or more economic variables using both simple and multiple linear regression models
- Estimate a linear regression model using the Least Squares estimation technique, interpret the estimated model and its parameters, and generate predictions based on the model
- Test econometric hypotheses based on the estimated regression model by applying statistical hypothesis testing using the Normal,  $t$ ,  $F$ , and Chi-square probability distributions
- Estimate multiple regression models with qualitative information (binary or dummy variables)
- Estimate simple panel data models that pool cross sections across time
- Estimate regression models with instrumental variables
- Estimate and analyze qualitative and limited dependent variable models (such as probit, logit)
- Describe different types of data and collect data from alternative data sources
- Utilize time-series and cross-section data to estimate regression models using Stata (an econometrics software), interpret and analyze the empirical results of the estimated models, and perform diagnostic tests to determine the adequacy of a model and its assumptions

### Course Resources

There will be an online course web page at the FAU Canvas site: <http://canvas.fau.edu>  
Student resources for FAU Canvas are available at  
<http://www.fau.edu/canvas/getting-started.php#Students>

### Grading Scale

A	93 and above
A-	90-92.99
B+	87-89.99
B	83-86.99
B-	80-82.99

C+	77-79.99
C	73-76.99
C-	70-72.99
D	60-69.99
F	<60

### Course Evaluation Method

The final grade will be based on two exams (25% each), econometric research/data assignments (30%), and empirical research project (20%).

Students taking the course for graduate credit (at the 5000 level) must complete all work for the 3000-level course and complete a take-home exam over the material in the corresponding 6000-level econometrics course in our MA Program. This take-home exam will be count 20% of the course grade.

	<u>COURSE OUTLINE</u>	<u>CHAPTER</u>
Week 1	Introduction & Methodology of Econometrics Review of Basic Probability Concepts	1 Appendix A-B
Week 2	Simple Linear Regression Model (Specification and Least Squares Estimation) LAB	2
Week 3	Interpretation of Regression Coefficients, Goodness-of-Fit, Properties of Least Squares Estimators & Gauss Markov Theorem LAB	2
Week 4	Multiple Regression Model (Estimation) LAB	3
Week 5	Inference in the Multiple Regression Model (t-tests, F-tests) LAB	4 Appendix C
Week 6	Data Scaling and Alternative Functional Forms LAB	6
Week 7	Qualitative Information and Dummy (Binary) Variables LAB	7
Week 8	<b>Exam 1</b> Due: Proposal for Research Project	
Week 9	Heteroskedasticity LAB	8
Week 10	Serial Correlation LAB	12
Week 11	Specification and Data Issues	9

	LAB	
Week 12	Pooling Cross Sections Across Time (Simple Panel Data Models) LAB	13
Week 13	Pooling Cross Sections Across Time (Simple Panel Data Models) LAB	13
Week 14	Instrumental variables Estimation LAB	15
Week 15	Limited Dependent Variable Models LAB	17
Week 16	Limited Dependent Variable Models	17
Week 17	Exam 2 and Submission of Final Research Project	

#### **Additional Course Policies**

#### Missing Exams

There will be no make-ups for exams. If a student misses an exam due to illness, job requirements, or other significant reasons, documentation will be required on the missed exam. (Insufficient documentation will result in an "F" on the missed exam). There will be no make-ups or extra credit for missed labs or for missed assignments.

#### Late Assignments

All homework assignments (and their due dates) will be posted on Canvas. Late submissions will not be accepted.

#### Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.



### University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

### Anti-plagiarism Software

Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own will be deemed in violation of the University's honor code discussed above.

## **Selected University and College Policies**

### Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see

[http://www.fau.edu/regulations/chapter4/4.001 Code of Academic Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001%20Code%20of%20Academic%20Integrity.pdf)

### Disability Policy Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses — Boca Raton, Davie and Jupiter — however disability services are available for students on all campuses. For more information, please visit the SAS website at <http://fau.edu/sas/>

### Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

#### Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments. For further information, please see FAU Regulation 2.007.

#### University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

#### College of Business Minimum Grade Policy Statement

The minimum grade for College of Business requirements is a "C". This includes all courses that are a part of the pre-business foundation, business core, and major program. In addition, courses that are used to satisfy the university's Writing Across the Curriculum and Gordon Rule math requirements also have a minimum grade requirement of a "C". Course syllabi give individualized information about grading as it pertains to the individual classes.

#### Incomplete Grade Policy Statement

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period of time not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

#### Withdrawals

Any student who decides to drop is responsible for completing the proper paper work required to withdraw from the course.

#### Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.

- There was a gross violation of the instructor's own grading system. The procedures for a grade appeal may be found in [FAU Regulation 4.002](#).

#### Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who behave in the classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

#### **Faculty Rights and Responsibilities**

Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the Student Code of Conduct.