

INTRODUCTION TO ECONOMETRICS
ECON 4475
Spring 2019
Dr. Adrian Austin and Dr. William (Joey) Smith

The course emphasis is on applications of econometrics and techniques in business analytics. Topics include methods of presenting data, numerical measures and correlation, estimation, linear/non-linear regression, limited dependent variables, simultaneous equations/instrumental variables, models of duration, and the use of these models in decision making processes. SAS business analytics software will be used in this course. (LG2, LG3)

Note. A complete list of expected Learning Goals and Objectives can be found at the Richards College of Business web site (http://www.westga.edu/business/undergrad_learning_goals.php).

The Course is split into two sections: Applied (Tuesdays) and Theory (Thursdays)

INTRO TO APPLIED ECONOMETRICS
SPRING 2019 (Thursdays)
Dr. Joey Smith

Dr. Joey Smith
1307 Business Building
Phone: (678) 839-4771
E-mail: Use the Desire2Learn mail utility found on the course toolbar for all course related questions. All email will be answered within 1 business day.
E-mail (Emergency Only): wjsmith@westga.edu

Office Hours:

Monday	8:00 – 12:00
Tuesday	3:30 – 5:30
Wednesday	8:00 – 12:00

This is the practical section of the class where you will use econometric techniques to analyze data and then present the results.

Applied Class Assignments (25 points):

There will be about 10 assignments (in class exercises and homework) given throughout the semester. All assignments are equally weighted and I will drop the lowest two when calculating your grade.

1. **SAS (Thursdays):**
 - a. **Data and Cleaning**
 - b. **OLS**
 - c. **Probit/Logit**
 - d. **Count Models (Poisson, Negative Binomial)**
 - e. **Duration**
 - f. **Simultaneous Equations**
 - g. **Other Topics as time allows**

Paper and Presentation (25 points):

You will write a research paper and present it at the College of Business' Annual SAS Day.

**INTRO TO ECONOMETRIC THEORY
SPRING 2019**

Dr. Adrian Austin (Tuesdays)

Dr. Adrian Austin

1315 Business Building

Phone: (678) 839-4773

E-mail: Use the Desire2Learn mail utility found on the course toolbar for all course related questions. All email will be answered within 1 business day.

E-mail (Emergency Only): aaustin@westga.edu

Office Hours:

Tuesday 9:00 – 11:30 & 3:30 – 5:00

Thursday 10:00 – 11:30 & 3:30 – 5:00

Topic List

2. Review of Probability and Statistics

Properties of the parameter estimates

Properties of the residuals

Hypothesis testing and CI

3. Bivariate OLS regression

Properties of the parameter estimates

Properties of the residuals

Hypothesis testing and CI

Goodness of Fit

Standard Output

4. MultiVariate OLS Regression

Properties of the parameter estimates
Properties of the residuals
Hypothesis testing and CI
Testing Multiple Restrictions
Goodness of Fit
Standard Output

5. OLS and Method of Moment Estimation

6. Gauss-Markov Theorem

7. Other properties of OLS regression

8. Functional Form, Specification and Identification

Over/Under Specification
Heteroskedasticity
Linear Non-Linear Equations
Binary Dependent Variables
Multicollinearity
Instrumental Variable Regression
Serial Correlation

9. Other Topics as time permits

This schedule may change as the class progresses. Any changes will be announced in class and on the class website.

Theory Exams (35 points):

There will be a theory midterm (15 points) and a theory final exam (20 points). The final exam is cumulative.

Theory Assignments (15 points):

There will be about 10 assignments (homework and quizzes) given throughout the semester. All assignments are equally weighted and I will drop the lowest two when calculating your grade.

Common Language for Course Syllabi

Updated June 21, 2013:

Students should review the following information each semester, because these statements are updated as federal, state, university, and accreditation standards change. A current version can always be found at

http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf

Americans with Disabilities Act

Students with a documented disability may work with UWG Accessibility Services to receive essential services specific to their disability. All entitlements to accommodations are based on documentation and USG Board of Regents standards. If a student needs course adaptations or accommodations because of a disability or chronic illness, or if he/she needs to make special arrangements in case the building must be evacuated, the student should notify his/her instructor in writing and provide a copy of his/her Student Accommodations Report (SAR), which is available only from Accessibility Services. *Faculty cannot offer accommodations without timely receipt of the SAR; further, no retroactive accommodations will be given.*

UWG Email Policy

University of West Georgia students are provided a MyUWG e-mail account. The University considers this account to be an official means of communication between the University and the student. The purpose of the official use of the student e-mail account is to provide an effective means of communicating important university related information to UWG students in a timely manner. It is the student's responsibility to check his or her e-mail.

Credit Hour Policy

The University of West Georgia grants one semester hour of credit for work equivalent to a minimum of one hour (50 minutes) of in-class or other direct faculty instruction AND two hours of student work outside of class per week for approximately fifteen weeks. For

each course, the course syllabus will document the amount of in-class (or other direct faculty instruction) and out-of-class work required to earn the credit hour(s) assigned to the course. Out-of-class work will include all forms of credit-bearing activity, including but not limited to assignments, readings, observations, and musical practice. Where available, the university grants academic credit for students who verify via competency-based testing, that they have accomplished the learning outcomes associated with a course that would normally meet the requirements outlined above (e.g. AP credit, CLEP, and departmental exams).

University of West Georgia Honor Code

At the University of West Georgia, we believe that academic and personal integrity are based upon honesty, trust, fairness, respect, and responsibility. Students at West Georgia assume responsibility for upholding the honor code. West Georgia students pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery or threats, and stealing.

The University of West Georgia maintains and monitors a confidential Academic Dishonesty Tracking System. This database collects and reports patterns of repeated student violations across all the Colleges, the Ingram Library, and the School of Nursing. Each incidence of academic dishonesty is subject to review and consideration by the instructor, and is subject to a range of academic penalties including, but not limited to, failing the assignment and/or failing the course. Student conduct sanctions range from verbal warning to suspension or expulsion depending on the magnitude of the offense and/or number of offenses. The incident becomes part of the student's conduct record at UWG.

Additionally the student is responsible for safeguarding his/her computer account. The student's account and network connection are for his/her individual use. A computer account is to be used only by the person to whom it has been issued. The student is responsible for all actions originating through his/her account or network connection. Students must not impersonate others or misrepresent or conceal their identities in electronic messages and actions.