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.

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

INTRO TO APPLIED ECONOMETRICS
SPRING 2015 (Tuesdays)
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.

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 2015 (Thursdays)
Dr. Adrian Austin

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

1. Review of Probability and Statistics
   Properties of the parameter estimates
   Properties of the residuals
   Hypothesis testing and CI

2. Bivariate OLS regression
   Properties of the parameter estimates
   Properties of the residuals
   Hypothesis testing and CI
   Goodness of Fit
   Standard Output

3. MultiVariate OLS Regression
   Properties of the parameter estimates
   Properties of the residuals
   Hypothesis testing and CI
   Testing Multiple Restrictions
   Goodness of Fit
   Standard Output

4. OLS and Method of Moment Estimation

5. Gauss-Markov Theorem

6. Other properties of OLS regression
7. **Functional Form, Specification and Identification**

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

8. **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.