

# Syllabus for ECON 3406: Statistics for Business II

**Instructor:** Dr. Michael Sinkey

**Class Time and Location:** Tuesdays and Thursdays, 11:00 - 12:20 PM, Adamson Hall 217

**Contact Information:** Please e-mail me directly at [msinkey@westga.edu](mailto:msinkey@westga.edu) should you need me. I do not guarantee to check D2L e-mail with any regularity. I expect you to check your UWG e-mail daily. Phone: 678.839.5166

**Office and Office Hours:** Miller Hall, room 1313. I will hold office hours on Wednesday morning, Wednesday afternoon, and Tuesday and Thursday morning.

**Materials for Class:** You will need to have access to a laptop at some point in the course. If you do not have access to a laptop you need to see me AS SOON AS POSSIBLE so we can figure out a solution.

**Class Description:** This is the second course in our quantitative sequence. We will cover hypothesis testing as a review from ECON 3402, regression and multiple regression, forecasting methods, basic analytics and a little bit of project design, and other selected topics. Students who have not taken ECON 3402 in some time will need to go back over hypothesis testing, confidence intervals, standard deviation, correlation coefficient, and the basics of forming a trend line as I will only devote a limited amount of time for these topics. Course learning objectives can be found on the Economics website, see <http://westga.edu/econ>

**Class Requirements:** You are not required to come to class. It is likely that you will get lost if you do not stay engaged with the material. From time to time I will ask you to bring a laptop to class because we will have in-class demonstrations of how to make a forecast and you will get lost doing forecasts at home if you're not engaged in class. It is my goal to have you gain a working understanding of how to use Excel to do some very basic statistical work as a part of this class.

**Expectations, Grades, Late Work:** No late work. I post answers online after the deadline. Your best two test grades will count twenty percent each; your worst test grade will count fifteen percent of the grade. The final is non-optional and counts as twenty percent of your grade. Each problem set is worth five percent of your grade, and the Tableau project is worth ten percent of your grade.

I will use a standard ten-point scale. Anybody who makes a *reasonable effort* will receive at least a D. I define a reasonable effort as missing two or fewer classes, turning in all the problem sets and making at least a fifty percent on one test.

**Cheating:** As juniors and seniors, I expect you to know what cheating is, but I will pursue whatever action is necessary should I catch you cheating, which will include a zero on the item in question and may include failing the class. I define cheating as communicating on an exam, having access to unauthorized materials during an exam, and submitting someone else's work as your own.

**Class Policies:** Act professionally. No cell phones as calculators. Do not show up late to my exams and expect extra time. If you need to make up an exam, you must have a valid documented excuse and must take the exam the next calendar day. You will receive a different version of the exam distributed in class, which may be more difficult, although I will not intentionally make an exam more difficult. Any adjustments to the makeup policy are case-by-case and are solely my discretion. **I am perfectly willing to let somebody take a zero on an exam.**

**Common Language for Course Syllabi:** This class abides by the common language for course syllabi, available online at:  
[http://www.westga.edu/assetsDept/vpaa/Common\\_Language\\_for\\_Course\\_Syllabi.pdf](http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf). Read it.

**Disabilities:** Students with disabilities will be accommodated. Bring your paperwork to me in time for me to be able to accommodate you. This means at least one week before your exams. Contact 123 Row Hall, phone 678.839.6428 if necessary.

**Tentative Schedule: subject to change:**

Date	Topics Covered (a * by a class date indicates that I would like you to bring your laptop on this date)
8/11	Review of ECON 3402, part one: standard deviation, measures of center, use z-table, etc.
8/16	Review of ECON 3402, part one: standard deviation, correlation coefficient, use z-table, etc.
8/18*	Review of ECON 3402, part two: confidence intervals, hypothesis testing
8/23*	Review of ECON 3402, part two: confidence intervals, hypothesis testing
8/25*	Review of ECON 3402, part three: hypothesis testing start of ECON 3406: chi-square tests, F-tests <b>PS 1 due</b>
8/30*	Review of ECON 3402, part three: hypothesis testing start of ECON 3406: chi-square tests, F-tests <b>PS 1 due</b>
9/1	Review, <b>PS1 non-Excel due</b>
9/6	<b>PS1 Excel due, midterm 1</b>
9/8	One-way ANOVA (single-factor)
9/13	One-way ANOVA (single-factor) and introduction to two-way ANOVA
9/15*	Finish ANOVA, start single variable regression
9/20*	Single variable regression, introduction to data manipulation
9/22*	Single variable regression, introduction to multiple regression
9/27*	Multiple variable regression
9/29*	Multiple variable regression, F-tests for joint significance
10/4*	Review, <b>PS2 due</b>
10/11	<b>Midterm 2</b>
10/13	Introduction to forecasting: naïve model, modified naïve model, moving averages
10/18*	Introduction to forecasting: naïve model, modified naïve model, moving averages
10/20*	Forecasting: single and double exponential smoothing, Holt model
10/25*	Forecasting: single and double exponential smoothing, Holt model
10/27*	Forecasting: single and double exponential smoothing, Winters model
10/27*	Forecasting: single and double exponential smoothing, Winters model
11/1*	Forecasting: Autoregressive Models and Durbin-Watson Statistic
11/3*	Review, <b>PS3 due</b>
11/8	<b>midterm 3</b>
11/10*	Introduction to Tableau
11/15*	Using Tableau for Basic Data Visualization
11/17*	Using Tableau for Basic Forecasting and Statistics
11/29*	Tableau workshop
12/1*	review
12/3*	<b>Tableau project due by midnight</b>
12/6*	<b>Tuesday, December 8, 11 AM</b>