

**ECON 3402 – BUSINESS STATISTICS I – Summer 2015.**

**CRN: 50432. Meets: M-F 10:00am – 12:15pm, room: RCOB 1309.**

Instructor: Salvador Lopez, Ph.D.

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Office Hours: M-F, 8-10am.

**TEXT (not required):** Statistical Techniques in Business & Economics, 16<sup>th</sup> Edition. Authors: Lind, Marchal, Wathen.

**COURSE DESCRIPTION:** Course emphasis is on applications of statistics in business. Topics include methods of presenting data, numerical measures and correlation, probability theory and probability distributions, sampling distributions, estimation, hypothesis testing, and linear regression.

**PREREQUISITES:** MATH 1111 or MATH 1113, CISM 2201 and a 2.0 minimum GPA.

**EXPECTED LEARNING OBJECTIVES**

Students will:

- Construct and interpret tabular and graphical methods of presenting qualitative and quantitative data. (LG2, LG3, LG12)
- Construct and interpret summary numerical measures of location, variability, and association for the sample and the population. (LG2, LG3, LG6, LG12)
- Apply basic probability concepts, expected value, and variance to a variety of business applications (LG2, LG6, LG12)
- Use discrete and continuous probability distributions and sampling distributions in a variety of business applications. (LG2, LG3, LG6, LG12)
- Construct and interpret interval estimates and be able to determine the required sample size for constructing interval estimates. (LG2)
- Estimate regression models, evaluate the results of regression models, and use the results for prediction and forecasting. (LG2, LG3, LG12)

- Use Microsoft Excel to generate descriptive statistics and perform regression and correlation analysis. (LG2, LG3, LG12)

Note: A complete list of expected learning goals (LG) for the Economics Department can be found at the department web site ([www.westga.edu/~econ/outcomes.html](http://www.westga.edu/~econ/outcomes.html)).

**ATTENDANCE AND CLICKERS:** Attendance is not required, but it is strongly recommended. There will be in-class questions in every session, which will be used to verify attendance and participation. Students who do not attend class regularly will receive little consideration in regard to individual instruction, borderline grade decisions, etc. If you use your cell phone in class (calls, texts, internet), you will be considered absent. Classes will begin promptly at the scheduled time and a few clicker questions will be asked at the very beginning of each session.

Cell phones cannot be used as calculators. Instead, you should bring a calculator to every class. A basic scientific or statistic calculator is recommended. Necessary commands: basic math operations plus factorial (!), exponential/logarithmic (“ln”, “e”), power ( $y^x$ ), exponential power ( $e^x$ ).

**TESTS:** During the semester, you will take three tests and a final cumulative (optional) exam. The date and material for each test are listed below. All necessary formulas and/or tables will be provided by the instructor (no need for a cheat sheet). Test questions will be based on the concepts and exercises discussed, illustrated and solved during class plus any extra set of exercises provided by the instructor. Maximum time allowed for each test is one hour. To every test, you are responsible for bringing a calculator and a No. 2 pencil. The instructor will provide a scantron for you, but not a pencil or a calculator. **No cell phones are allowed.** Each test will count for 25% of your final grade.

The final (cumulative) exam has no weight assigned. You can take it only to replace one of your test grades.

Syllabus quiz: You need to take a (online) syllabus quiz, which will count for 2% of your final grade. It is due by midnight, Tuesday, 6/2.

**MAKE-UP POLICY:** If you miss a test due to a verifiable and justifiable reason (medical, accident, etc.), you can take a make-up test on the following day of classes at 8:30am. If you think you may have a valid excuse for not taking a test,

contact your instructor as soon as possible (preferably before the test). Please keep in mind that email messages or phone calls are not valid excuses. Only medical notes, police reports, or similar, are valid excuses. Important: all excuses/reports must show specific dates and names.

**IN-CLASS QUESTIONS/EXERCISES:** Every day of classes, you will be required to participate by solving problems or responding to questions related to current material. The average grade obtained (after dropping the lowest grade) will be assigned fifteen percent of your final grade. For most questions, you are allowed to consult with classmates. However, some responses/answers may be required to be submitted individually.

Since the first day of classes, every absence, whether justified or not, will be recorded with a zero grade. If you are not present on the first day of classes, that will be your lowest grade. Remember: if you use your cell phone during class, you will be considered absent.

**REGRESSION ASSIGNMENT:** Based on the material learned in chapter 13, you will be assigned an Excel regression exercise due by noon the last day of classes (June 25th, 2015). The instructions and specific exercise will be provided on Monday, 6/22, the beginning of chapter 13 discussion. This assignment is worth eight percent of your final grade.

**CELL PHONES:** As soon as class starts, all cell phones must be turned off and placed away from your desk inside your bags or pockets. **Cell phones cannot be used as calculators both during regular class and examinations.** If one day you have a special situation that requires you to leave your cell phone on, please let the instructor know in advance before class starts.

If you do not let the instructor know of a special situation (emergency of some sort) and you use your cell phone for private entertainment (internet surfing) or communication (calls, texts), your clicker grade for that day will be zero. No warning may be given. To avoid misinterpretations, you should not place your cell phone on top of your desk.

**LAPTOPS:** If you want to take notes using a personal computer, you must sit in the front row and should let the instructor know in advance.

**CHEATING:** Academic dishonesty on any exam will result in a zero on the exam, an F for the course, a note recording the incident on the student's permanent record

and the student reported to Student Services for appropriate disciplinary action by the University. Students not familiar with what constitutes academic dishonesty or those unfamiliar with the appeal procedure regarding academic dishonesty should refer to the UWG Undergraduate Catalog.

#### **GRADE DISTRIBUTION BY ACTIVITY**

<b><u>ACTIVITY/MATERIAL</u></b>	<b><u>DATE</u></b>	<b><u>WEIGHT</u></b>
Syllabus quiz (online)	Due by midnight, 6/2	2%
In-class Assignments	Daily	15%
Regression Assignment	Due by noon, 6/25	8%
Test 1 (chapters 2-4)	Friday, 6/5	25%
Test 2 (chapters 5-7)	Friday, 6/12	25%
Test 3 (chapters 8-10, 13)	Wednesday, 6/24	25%
Final exam (optional, cumulative)	Thursday, 6/25 (10am-12pm)	--

**DISRUPTIVE BEHAVIOR:** Arriving late, leaving early, yawning loud, talking during lectures, receiving or sending text messages while in class, are some of the most common ways students may interrupt a class and encourage others to do the same. If you consistently show evidence of this behavior, the instructor will give you first a verbal warning. If the behavior continues, you may be dropped from the course with an F. **Cell phones must be turned off as soon as class starts.**

**COURSE OUTLINE AND METHOD OF INSTRUCTION:** Chapters 2-10, 13. The material will be covered using a lecture approach emphasizing participative problem-solving. Since a textbook is not required, studying the slides and handouts is essential.

**Final Letter-Grade Assignment. No further adjustments will be made.**

0 – 59.49: F

59.50 – 69.49: D

69.50 – 79.49: C

79.50 – 89.49: B

89.50 – 100: A

The grades shown above define what your instructor considers a grade being “close enough” to the next letter grade. Please do not ask for any further adjustment, especially if you have a low attendance. At the end of the semester, no extra credit or make-up work will be assigned to improve your grade.

### **THREE IMPORTANT TIPS TO BE A GOOD STUDENT.**

1. Attend classes and be punctual. After you graduate, that is going to be an essential requirement in almost any job. Do not plan on being responsible and respectful until some day in the future. You should start today.
2. Make every class session a study session. Focus and pay attention. Participate, get involved, ask questions, and work every problem and every operation, no matter how small they are. Stay away from distractions: cell phones, sitting next to “buddies”, potential new girlfriend/boyfriend, windows and well-known “talkers”.
3. Study daily. If possible, at the same time and location. Assign a reasonable amount of time (30 - 40 minutes) and never miss it. Consistency will always take you very far into the path of success.