

**ECON 3402 – BUSINESS STATISTICS I – Spring 2017.**  
**Section: 02, CRN: 10558. Meets: M, W 11:00am – 12:15pm, room: RCOB 1309.**

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**REQUIRED TEXTBOOK:** Statistical Techniques in Business & Economics, 16<sup>th</sup> Edition. Authors: Lind, Marchal, Wathen. The McGraw-Hill “Connect” website will be used for homework assignments and every test. Registration and payment must be done through the same website using the link found in CourseDen. **You must be registered by 1/18/2016. Otherwise, you will be dropped from the course. You may register and pay immediately or during the two-week grace period given by McGraw-Hill. If you do not pay by the end of the grace period, you will not be able to access the course assignments and tests and will have no choice but to drop the course.**

**IMPORTANT REQUIREMENT:** Before class starts, turn your cell phone off. All other electronic (alternative) devices with internet access must be turned off too. The only exception is when a student wants to use a laptop or tablet to take/read class notes. In that case, the student must sit in the first row of the classroom and use the device only for note-taking purposes. Violation of these rules, regardless of duration, will be penalized with a zero clicker grade for the day and you will receive a warning for disruptive behavior.

Remember: “soft skills” are very important for your present, and your future. Start today, not tomorrow. For more information regarding soft skills, click on this important link: [georgia best website](#).

**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 & CLICKER USAGE:** Attendance is not required, but it is strongly recommended. There will be in-class questions in every session, which will be used to evaluate attendance and participation. Students who do not attend class regularly will receive little consideration in regard to individual instruction and borderline grade decisions. The following rules apply to clicker usage:

1. From day one of classes, you will be assigned a clicker number, which you should remember for the rest of the course. In case you forget, ask me for help.
2. If your “low battery” indicator blinks after you submit an answer, please let me know immediately. To open the battery compartment, insert the tip of a pen or a small pin in the slot located next to it.
3. At the beginning of each class, take your clicker from the clicker bag and replace it in the same slot with your cell phone turned off. If your phone rings in the middle of the class, you will receive a warning for disruptive behavior.
4. If you don’t have a cell phone to leave in the bag due to not having one with you, please let me know in advance. Otherwise, you will receive a zero grade for the day.
5. If you place your cell phone in the bag and use a second electronic device during class, you will receive a zero grade for the day and will receive a warning for disruptive behavior.
6. If you commit a rule violation for the third time, you will be asked to leave the classroom and come back only to take tests. All your remaining clicker grades will be zeros (due to low “soft skills”).
7. At the end of each class, turn your clicker off, place it back into the corresponding slot and get your cell phone back. Clickers should be placed with narrow end first.
8. If you miss any class due to any reason (justified or not), your clicker grade will be zero.
9. The lowest two clicker grades will be dropped.

**CALCULATOR:** Since cell phones must be turned off, they cannot be used as calculators. Instead, you should bring a calculator to every class. A basic scientific or statistics calculator is

recommended. Necessary commands: basic math operations and other commands such as factorial (!), exponential/logarithmic (“ln”, “e”), power ( $y^x$ ), and exponential power ( $e^x$ ). If you don’t bring a calculator, pencil and paper to every class, you will not learn much and may not be able to solve problems using the clicker.

**POWERPOINT SLIDES AND NOTE TAKING:** All chapter slides will be available in D2L. You are strongly encouraged to print them (4 per page) and bring them to class every day, so you can take notes only when I add information or edit current slides. If you instead decide to take notes, write down the information in advance. Class will not be delayed by requests for additional time to write down information contained in the slides. Remember: “soft skills” are very important, for your present, and your future. Start today, not tomorrow.

If you want to use a laptop computer or tablet ONLY for the purpose of taking notes, you must sit in the first row of the classroom. If you sit in the back and/or use it to access unrelated websites (Facebook, Gmail, Youtube, Snapchat, etc.) your clicker grade will be zero for that day, and you will receive a warning for disruptive behavior (read more on this topic below).

**TESTS:** During the semester, you will take a syllabus quiz and four tests covering two chapters each. Maximum time allowed for the syllabus quiz will be five minutes. The fourth test is also your final exam. The date and material for each test are listed below. Since notes are allowed in every test, you are responsible for bringing copies of any relevant information such as formulas and tables. Test questions will be based on the exercises recommended per chapter and those solved in the homework assignments. Maximum time allowed for each test is one hour. You may use a calculator but not a cell phone. All electronic devices (except the lab computer) must be turned off and away from your desk. You have to work individually and not communicate with anybody else using any method (verbal, notes, emails using computer lab, etc.). Each test will count for 18.75% of your final grade.

All tests will be taken at RCOB 2329 (computer lab). You should be in the room at least five minutes before starting time. Some exercises may require the use of Excel.

**CHEATING:** Academic dishonesty on any exam will result in an automatic zero on the test, most likely an F in 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.

**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 at 8am on the following week day not covered by your (valid) excuse. If you think you may have a valid reason for not taking a test, contact me 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, signatures and contact numbers. The content and format of make-up tests are not necessarily the same as those of regular tests.

**IN-CLASS QUESTIONS/EXERCISES:** Every day of classes, you will be required to solve relevant (assigned) problems or respond to specific questions using the clicker. The average grade obtained (after dropping the lowest two grades) will be assigned five percent of your final grade. I will announce in class which questions must be answered individually and which ones may be consulted with classmates. Clicker quizzes may start as soon as class time begins. Since the first day of classes, every absence, whether justified or not, will be recorded with a zero grade.

**“CONNECT” ASSIGNMENTS:** At the textbook website, you will be required to complete two assignments: Homework and LearnSmart. A homework is assigned per chapter. It contains a set of questions based on exercises found in the textbook. It has no time limit and you will have up to two attempts to complete it. You will have the option to review each answer and verify whether it is correct or not. The highest grade will be recorded. LearnSmart is also assigned per chapter and it contains a series of questions that review the most important material. As you take this assignment, the textbook will be highlighted in the areas that you need to review. After you finish responding to all the questions, you will have another chance to respond to those that you submitted wrong the first time. Correct answer to every question is always available. A video demonstrating how to use LearnSmart and Connect will be posted in D2L (inside “start here”).

Weights: eight percent for homework, five percent for LearnSmart. Both assignments are due by 8am, on the same day of each test. Advice: complete assignments as each chapter is discussed in class, not until the day of the test or the night before (remember the “soft skills”).

**REGRESSION ASSIGNMENT:** Based on the material learned in chapter 13, you will be assigned an Excel regression exercise due by 8am, the day of test 4. The instructions and specific exercise will be provided on Monday of last week of classes. This assignment is worth five percent of your final grade.

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

<b>ACTIVITY/MATERIAL</b>	<b>DATE</b>	<b>WEIGHT</b>
Syllabus quiz	Wednesday, 1/18	2%
In-class (clicker) questions	Daily	5%
Homework	Due by 8am before every test	8%
LearnSmart	Due by 8am before every test	5%
Regression assignment	Due by 8am before test 4	5%
Test 1 (chapters 3 & 5)	Wednesday, 2/1	18.75%
Test 2 (chapters 6 & 7)	Monday, 3/6	18.75%
Test 3 (chapters 8 & 9)	Monday, 4/3	18.75%
Test 4 (final, chapters 10 & 13)	Monday, 5/8 (11 am - 12 pm)	18.75%

#### **DISRUPTIVE (DISRESPECTFUL) BEHAVIOR:**

“Classroom disruptions: Any classroom behavior that interferes with the instructor's ability to conduct class or the ability of other students to learn. Examples of disruption include, but are not limited to, the following: allowing personal electronic communication devices to ring or beep, making or receiving phone calls or pages, or engaging in conduct that causes or provokes a

disturbance that disrupts academic pursuits, or infringes upon the rights of others” (student handbook, section 3.02).

Accessing the internet with electronic devices, arriving late, leaving early, yawning loud, talking during lectures, making sarcastic comments regarding course material, 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, I will give you first a verbal warning and may assign you to sit somewhere else. If the behavior continues after two warnings, you will be asked to leave the classroom and come back only to take tests. All your remaining clicker grades will be zeros.

To reduce interruptions/disruptions, students may be assigned specific seats in the classroom. Also, classroom door may be closed (and locked) at the beginning of every session.

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

0 – 59.99: F

60 – 69.99: D

70 – 79.99: C

80 – 89.99: B

90 – 100: A

The grades shown above define what your instructor considers a grade being “close enough” to the next letter grade. At the end of the semester, please do not ask for further adjustments or extra assignments, especially if you have a low attendance and/or in-class participation. The best time to “improve” your grade is during the semester, starting with day one of classes.

**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: electronic devices, buddies, potential new girlfriend/boyfriend, windows, inattentive students, etc.
3. Study, and review, 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.

**IMPORTANT: THIS SYLLABUS SHOWS LEARNING GOALS, EVALUATION SCHEDULE AND CERTAIN RULES REGARDING USE OF CLICKERS AND ATTENDANCE. HOWEVER, DEVIATIONS MAY OCCUR.**

**TENTATIVE SCHEDULE FOR ECON 3402, SPRING 2017. DEVIATIONS MAY OCCUR**

<b>Date</b>	<b>Material</b>
1/9	Syllabus, Chapter 3
1/11	Chapter 3, open drop ends (open add ends on 1/12 at 4pm). Withdrawal period starts.
1/16	MLK holiday (no class)
1/18	Syllabus quiz. Chapter 3. Last day to register in the course using "Connect" (McGraw-Hill Website). <b>If you do not register by this day, you will be automatically dropped from the course. McGraw-Hill gives you a two-week grace period to pay for the textbook.</b>
1/23	Chapter 5
1/25	Chapter 5
1/30	Chapter 5
2/1	Test 1 (chapters 3 & 5). Location: RCOB 2329 Computer Lab
2/6	Chapter 6
2/8	Chapter 6
2/13	Chapter 6
2/15	Chapter 7
2/20	Chapter 7
2/22	Chapter 7
2/27	Chapter 7
3/1	Chapter 8
3/6	Test 2 (Chapters 6 & 7). Location: RCOB 2329 Computer Lab
3/8	Chapter 8
3/13	Chapter 8
3/15	Chapter 9
3/20	Spring break (no class)
3/22	Spring break (no class)
3/27	Chapter 9
3/29	Chapter 9
4/3	Test 3 (Chapters 8 & 9). Location: RCOB 2329 Computer Lab
4/5	Chapter 10
4/10	Chapter 10
4/12	Chapter 10
4/17	Chapter 13
4/19	Thanksgiving Break (no classes)
4/24	Thanksgiving Break (no classes)
4/26	Chapter 13
5/1	Chapter 13
5/8	Test 4 (final exam) at 11am. Location: RCOB 2329 Computer Lab