

Florida State University Department of Statistics STA 1013 – Statistics Through Example Summer 2019 – Online Course 3 Credit Hours

<u>Instructor</u>: Andrew Archer <u>Email</u>: <u>aja13d@my.fsu.edu</u> <u>Office Location</u>: Online <u>Office Hours</u>: Wednesday 11AM – 12PM or by appointment. <u>Class Meetings</u>: This is an online course. A testing center is required for the common assessment and final exam.

<u>Required Material:</u> MyStatLab. See last page of the syllabus. This is the textbook requirement for the course. No other materials are required. Students who choose to take their exams off campus may have to be a fee. Please contact the testing center to learn more. You will also need a calculator for this course. Appropriate models are: TI-83, TI-83+, TI-84, TI-84+ graphing calculator.

## **Course Information**

<u>Prerequisites</u>: None, but we recommend two years of high school algebra. <u>Course Description</u>:

This course provides students with a background in applied statistical reasoning. Fundamental topics are covered including graphical and numerical description of data, understanding randomness, central tendency, correlation versus causation, line of best fit, estimation of proportions, and statistical testing.

Statistical thinking, relevant ideas, themes, and concepts are emphasized over mathematical calculation. In this class students learn many of the elementary principles that underlie collecting data, organizing it, summarizing it, and drawing conclusions from it.

#### **Course Objectives**

This course has been approved to meet FSU's Liberal Studies **Quantitative and Logical Thinking** requirements and is designed to help you become a critical analyst of quantitative and logical claims. In order to fulfill the State of Florida's College mathematics and computation requirement the student must earn a "**C**-" or better in the course.

By the end of the course, students will demonstrate the ability to:

(1) Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.

(2) Use a variety of forms to represent problems and their solutions.

The above two competencies will be assessed in the Liberal Studies Quantitative Assessment for STA 1013, which includes a written summary of results.

(3) Apply sound concepts of sample selection and experimental design in producing data.

(4) Use statistical thinking in the context of work processes, academic endeavors, and everyday life.

(5) Describe how inferential statistical methods are used to make valid judgments based on the data.

(6) Evaluate the validity of statistical results with skepticism based on sensible considerations.

# Important Dates

- <u>First Day Attendance</u>: Due by Friday, May 17<sup>th</sup>, 2019 at 11:59PM EDT. There is a "First Day Attendance" assignment on MyStatLab. Complete this to be marked as present so that I am able to ensure you have been able to gain access to MyStatLab.
- <u>Final Exam & Common Assessment:</u> Due by June 21<sup>st</sup>, 2019 at 5:00PM. You will need to go to a testing center between June 17<sup>th</sup> and June 21<sup>st</sup> to take this exam. You are able to take the exam at a testing center other than FSU, however you will need to pay a fee. To find available testing centers please contact the FSU testing center at 850-644-3017. Further information will be posted on Canvas throughout the semester.
- <u>Holidays:</u> Memorial Day (May 27<sup>th</sup>, 2019)

# Types of Assignments

- <u>Homework</u>: Homework is assigned on MyStatLab and will always be due on Friday at 11:59PM EDT. Homework is to practice problems for each topic and reinforce lessons from the topic and therefore there are unlimited attempts on each homework question. Cooperation with other students on homework is allowed and encouraged. There are lots of questions on homework assignments and they will take a while to complete.
- <u>Quizzes</u>: Quizzes are assigned on MyStatLab and will always be due on Friday at 11:59PM EDT. Quizzes are meant to demonstrate your understanding of the topics in each chapter and therefore can only be taken once. However, there are practice quizzes available for each chapter with unlimited attempts that are great practice to take a couple times before taking the real quiz. Quizzes must be taken individually.
- <u>Discussions</u>: There are discussion boards posted for each chapter on MyStatLab under the discussion tab. Posts are not mandatory; however, if you have any questions about the material you should post to the discussion board. Here you are able to discuss with fellow classmates and in addition I will be going on and answering questions frequently.
- <u>Common Assessment</u>: The common assessment will need to be taken at a testing center. The common assessment will be taken with the final exam and will cover normal distributions and the central limit theorem. You will be allowed two pages of notes (typed or handwritten) front and back on the exam as well as your calculator.
- <u>Final Exam</u>: The final exam will need to be taken at a testing center. The final exam will need to be taken during final exam week between June 17<sup>th</sup> and June 21<sup>st</sup>. The final exam will be a cumulative exam that covers all nine chapters covered in this course. You will be allowed unlimited amount of notes on the final as well as your calculator.

# **Grading Structure**

- <u>Weights</u>: Homework (30%), Quizzes (30%), Common Assessment (10%), Final Exam (30%). There is no extra credit offered in this course.
- <u>Grades</u>: A (93-100), A- (90-92.9), B+ (87-89.9), B (83-86.9), B- (80-82.9), C+ (77-79.9), C (73-76.9), C- (70-72.9), D+ (67-69.9), D (63-66.9), D- (60-62.9), F (0-60).

## Late Work

There will be no late work allowed in this course. You will need to keep up with all of your work in order to succeed in the class.

If you have a well-documented reason for missing an assignment, quiz, or test (such as being in the hospital or a death in the family), send the documentation to me **within one week** of the missed deadline. If appropriate, then you will be allowed an extension to the following Friday and will be able to get full credit on the missed assignment.

# **Grade Appeals**

Errors in grades must be reported within one week of the due date of the assignment in question. If you get an answer wrong on a quiz and believe that you may be right you are able to send an email to me and explain the question, the correct answer, and your justification. The problem will be reviewed and if you are correct, you will receive points back for that question. No grades will be adjusted after June 18<sup>th</sup>, 2019.

## **University Attendance Policy**

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

# **Academic Honor Policy**

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University."<sup>[2]</sup> (Florida State University Academic Honor Policy, found at <a href="http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy">http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy</a>.

# Americans With Disabilities Act

Students with disabilities needing academic accommodation should:

(1) register with and provide documentation to the Student Disability Resource Center; and
(2) bring a letter to the instructor indicating the need for accommodation and what type.
Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.
This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the: Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) sdrc@admin.fsu.edu http://www.disabilitycenter.fsu.edu/

## Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

## Note on Technology-dependent Assessments

This course is heavily technology-dependent. While we will do our best to work with you on technology issues, please be aware that if you take an assessment but we can find absolutely no record of the fact, then we will not be able to give you credit for it.

# Pacing Schedule

\*Discussion boards are posted for each chapter in order for you to discuss with your fellow classmates any questions you may have about the material. This is not required but you may find it useful.

\*ALL ASSIGNMENTS ARE DUE BY 11:59PM ET. Each chapter has homework and a quiz. \*You are welcome to work ahead on your work in MyStatLab if you wish.

| Week                       | Due Date                           | Chapter Due                    |
|----------------------------|------------------------------------|--------------------------------|
| Week 1 (May 13 - May 17)   | May. 17 <sup>th</sup>              | First Day Attendance           |
|                            | May 24 <sup>th</sup>               | Chapter 1 Due                  |
|                            |                                    | "Speaking of Statistics"       |
|                            |                                    | Chapter 2 Due                  |
|                            |                                    | "Measurement in Statistics"    |
| Week 2 (May 20 - May 24)   | May 24 <sup>th</sup>               | Chapter 3 Due                  |
|                            |                                    | "Visual Displays of Data"      |
|                            |                                    | Chapter 4 Due                  |
|                            |                                    | "Describing Data"              |
| Week 3 (May 27 – May 31)   | May 31 <sup>st</sup>               |                                |
|                            |                                    | Chapter 5 Due                  |
|                            |                                    | "A Normal World"               |
|                            |                                    |                                |
| Week 4 (June 3 – June 7)   | June 7 <sup>th</sup>               | Chapter 6 Due                  |
|                            |                                    | "Probability in Statistics"    |
|                            |                                    | Chapter 7 Due                  |
|                            |                                    | "Correlation and Causality"    |
| Week 5 (June 10 – June 14) | June 14 <sup>th</sup>              | Chapter 8 Due                  |
|                            |                                    | "From Samples to               |
|                            |                                    | Populations"                   |
| Week 6 (June 17- June 21)  | June 21 <sup>st</sup>              |                                |
|                            |                                    | Chapter 9 Due                  |
|                            |                                    | "Hypothesis Testing"           |
|                            | June 21 <sup>st by</sup> 5:00 P.M. | Einal Evam <sup>9</sup> Common |
|                            |                                    |                                |
|                            |                                    | (Testing Center)               |



#### To register for STA 1013 Online - Fall 2018 :

- 1. Go to www.pearson.com/mylab.
- 2. Under Register, select Student .
- 3. Confirm you have the information needed, then select OK! Register now .
- 4. Enter your instructor's course ID: archer84107, and Continue.
- 5. Enter your existing Pearson account username and password to Sign In .

You have an account if you have ever used a MyLab or Mastering product. » If you don't have an account, select **Create** and complete the required fields.

6. Select an access option.

» Enter the access code that came with your textbook or that you purchased separately from the bookstore.

- » If available for your course,
- Buy access using a credit card or PayPal. Get temporary access.
- 7. From the You're Done! page, select Go To My Courses .
- 8. On the My Courses page, select the course name STA 1013 Online Fall 2018 to start

your work.

#### To sign in later:

- 1. Go to www.pearson.com/mylab.
- 2. Select Sign In .
- 3. Enter your Pearson account username and password, and Sign In .
- 4. Select the course name STA 1013 Online Fall 2018 to start your work.

#### To upgrade temporary access to full access:

- 1. Go to www.pearson.com/mylab.
- 2. Select Sign In .

3. Enter your Pearson account **username** and **password**, and **Sign In** . 4. Select **Upgrade access** for **STA 1013 Online - Fall 2018**.

5. Enter an access code or buy access with a credit card or PayPal.