

**Math 2101**  
Introductory Statistics  
Fall Semester 2015

COURSE DETAILS: TR 9:30-10:45 Math 2101-B CRN 664 IC #310

INSTRUCTOR: Mr. Geoff F. Clement  
OFFICE: Russell Hall, Room 205  
OFFICE HOURS: M-R 8-9 & 1-2, W 2-4, and other times by appointment  
OFFICE PHONE: (678) 359-5820 or 359-5826 (MPS Division Office)  
E-MAIL: [gclement@gordonstate.edu](mailto:gclement@gordonstate.edu)  
WEB PAGE: <http://faculty.gordonstate.edu/gclement/>

PREREQUISITE: MATH 1001, MATH 1111, or MATH 1113  
CREDIT: 3 semester credit hours

CALCULATOR: A graphing calculator is required. A Texas Instruments TI-83/TI-84 or higher or equivalent is highly recommended.

TEXT: Triola, Mario F. 2015. *Essentials of Statistics* bundled with My Stat Lab. 5<sup>th</sup> ed. Pearson Education Inc. Package ISBN-10: 0-321-92459-2, ISBN-13: 978-0-321-92459-9.

**My Stat Lab website:** <http://pearsonmylabandmastering.com>

**My Stat Lab Course ID:** clement86522

**My Stat Lab Technical Support:** 1-800-677-6337

**Note: This is a tentative syllabus and may be changed by the instructor at any time.**

**COURSE DESCRIPTION**

This course is an introduction to non-calculus based statistics. Emphasis is on the applied rather than the theoretical side of statistical analysis. This course will help you become a more thoughtful, critical consumer of quantitative information, and a clear, effective interpreter and communicator of quantitative information. These objectives are achieved through an intensive but appropriate use of graphing technology. A Texas Instrument (TI-83/TI-84 Plus) is recommended. I will be using a TI-84 Plus in class. You are expected to bring your own calculator to class and to all tests and the final exam.

This course will emphasize student preparation, critical thinking, and problem solving. To do well in the course, you must ***study (not just read) the assignment ahead of time*** and prepare questions, do suggested problems from the text, and prepare for test by reviewing those problems worked in class and at home. Over the course of the semester, you should devote about two hours of outside work for each hour in class. Introductory Statistics demands your time and effort! **First, study the examples worked in class as well as those in the textbook, then practice, practice, practice problems.**

This course, as many other courses, will emphasize the written communication of ideas to others. In this course, you will be communicating mathematical ideas. Just as it is important in an English course to use the proper format in your essays and term papers, it is important to use proper form when communicating mathematical ideas. You will learn how to write mathematics so that it can be understood by others. You should carefully study how mathematics is written in class as well as how it is written in the textbook. You

should pattern your writing after these sources.

### COURSE OBJECTIVES

This objective is directed toward the following general education expected outcome of the college:

**Mathematical Skills:** Students will demonstrate a basic knowledge of the fundamentals of college-level mathematics.

Upon completion of Introductory Statistics, students should have an understanding and be able to demonstrate their knowledge of:

1. Describing and comparing data
2. Probability and probability distributions
3. Estimating parameters
4. Hypothesis testing
5. Correlation and Regression.

### METHOD OF EVALUATION

**Tests – 60%.** There will be four unit tests. **There will be NO make-up tests given.** If you miss a test, it will be replaced with your final exam score. If you miss a second test, a grade of zero will be recorded. **Cell phones are not allowed in class during any test. Extra time will not be given to complete tests, unless documentation is on file with the college specifying this requirement.**

**Comprehensive Final Exam** – This comprehensive exam is multiple choice format and may also replace the lowest unit test. *Students need to bring their Scantron form to the final. They are available in our college bookstore.* Gordon College policy states the Final Examinations must be taken at the scheduled time with the following exception. Students who have three or more finals on the same day may petition to take the third and/or fourth exam on another day or days. Student Petition forms are available in the Academic Affairs Office (Lambdin Hall 347). Please make your plans accordingly.

**Quizzes/Projects – 20%.** All daily assignments are due during class with a 20% penalty for assignments coming in late on the same day and a 0 for all missed deadlines.

**My Stat Lab Homework – 20%.** Purchase the access code before the end of the first week of class! All deadlines are class time on the day of the test. Don't let things "snowball".

Grading Scale (with "rounding to the nearest whole percent")

90 – 100 %	A
80 – 89 %	B
70 – 79 %	C
60 – 69 %	D
0 – 59 %	F

### CLASS PROCEDURES

**Attendance:** Attendance at class is important. I will take attendance in this class, and students are responsible for every instruction, every change in the syllabus, and all material covered in class whether or not they are present. If you miss class, you should contact a fellow classmate to get the notes and/or

assignment for that day. *Students who enroll in the course late are responsible for material covered before they enrolled.*

**Working Problems:** Most students will benefit by working *many, many* problems for practice. These are intended to give the student practice in specific concepts that are taught in class. The problems will not often be graded. However, I strongly encourage you to work them to better prepare for the tests. I will use approximately the first ten minutes of class to answer any questions about the homework problems. Math is not a spectator sport!

**Group Work:** I encourage students to work together on homework.

**Academic Honesty:** Each student must do his or her own work on each assignment without any assistance from any outside source. The penalty in our class is a 0 on the assignment and a report to our school MPS department chair. The student handbook details school policies on academic honesty. For a test, if it is necessary to place personal belongings at the front of the room, Gordon State College is not responsible for any stolen items.

**Title IX:** Gordon State College is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. All faculty members at Gordon State College are mandated reporters. Any student reporting any type of sexual harassment, sexual assault, dating violence, domestic violence or stalking must be made aware that any report made to a faculty member under the provisions of Title IX will be reported to the Title IX Coordinator or a Title IX Deputy Coordinator. If you wish to speak with someone confidentially, you must contact the Counseling and Accessibility Services office, Room 212, Student Life Center. The licensed counselors in the Counseling Office are able to provide confidential support.

Gordon State College does not discriminate against any student on the basis of pregnancy, parenting or related conditions. Students seeking accommodations on the basis of pregnancy, parenting or related conditions should contact Counseling and Accessibility Services regarding the process of documenting pregnancy related issues and being approved for accommodations, including pregnancy related absences as defined under Title IX.

**ADA and 504:** If you have a documented disability as described by the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, you may be eligible to receive accommodations to assist in programmatic and/or physical accessibility. The Counseling and Accessibility Services office located in the Student Center, Room 212 can assist you in formulating a reasonable accommodation plan and in providing support in developing appropriate accommodations to ensure equal access to all GSC programs and facilities. Course requirements will not be waived, but accommodations may assist you in meeting the requirements. For documentation requirements and for additional information, contact Counseling and Accessibility Services at 678-359-5585.

**Classroom Etiquette:** Students are expected to treat the instructor and other students with respect. Please refrain from the following during class time:

1. Talking with other students.
2. Leaving class early (other than an emergency).
3. Leaving the desk to sharpen a pencil or go to the trash can in the middle of a lecture.
4. Late coming to class. (After I close the classroom door, no one is permitted to enter.)

5. Cell phones ringing during class. Placing or receiving cellular phone calls or texts during class. Cell phones cannot be used as calculators during a test.
6. I-pods or other music listening devices should NOT be in use during class time.

### **OFFICE PROCEDURES**

When you come to my office for help, please be prepared by doing the following.

1. Bring your textbook, your calculator, and your class notes.
2. Make sure you have read the section in the text, read the class notes, and studied the examples.
3. Be prepared to show me at least two odd-numbered problems, from the section that you have worked.
4. Bring your incomplete or incorrect solution to each problem about which you have a question.
5. Ask for help as early as possible. **Don't wait until the day of a test!**

### **COURSE RESOURCES**

You will need a pencil, a notebook (a loose-leaf binder is best), graph paper, and a straightedge. A folder for handouts is highly recommended.

This course is enhanced by a web-based course software package called My Stat Lab. Feel free to "Ask My Instructor" whenever you struggle, and use office hour help, as well.

There are also significant course resources in Desire2Learn/Brightspace. The course syllabi and course resources are on your instructor's website at <http://faculty.gordonstate.edu/gclement/>.

Besides office hours, the SSC (Student Center 2<sup>nd</sup> floor) is available for tutoring assistance. Consider also creating a study group with fellow classmates.

**MIDTERM – Monday, October 5** – Withdrawals after this date will be an automatic 'WF' except in cases of hardship as documented and approved by processing a petition form through the Registrar.

### **Keys to Success in this class:**

- (1) Have a goal for this class. Make this class a priority. You can succeed in this class!
- (2) Be on time every day. Don't miss class; when you must, communicate to your instructors.
- (3) Review class notes just before and just after class.
- (4) Read the text. Study the examples. Keep up with the pace of the class.
- (5) Practice, practice, and then practice some more. Do homework as soon as possible after class.
- (6) Ask questions. You have the right; asking questions shows you care and will often help others.
- (7) Read the directions carefully. On tests, start by "unloading" important formulas and concepts.
- (8) Actively listen in class. Take good notes.
- (9) Use our tutoring center whenever you need help. Don't let things snowball.
- (10) Correct any mistakes you make on quizzes and tests.
- (11) Be a lifelong learner. Live and learn! Rise to the challenge of college-level mathematics!

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**TENTATIVE COURSE OUTLINE**  
**MATH 2101-B**  
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Date	Section	Practice Problems
Thurs, Aug 13	1-1: Review and Preview	
	1-2: Statistical Thinking and Critical Thinking	1-35 odd
Tue, Aug 18	1-3: Types of Data	1-31 odd
	1-4: Collecting Sample Data	1-29 odd
Thurs, Aug 20	2-1: Overview and Preview	
	2-2: Frequency Distribution	1-31 odd
	2-3: Histograms	1-17 odd
	2-4: Graphs That Enlighten and Graphs That Deceive	1-23 odd
Tue, Aug 25	3-1: Review and Preview	
	3-2: Measures of Center	1-31 odd
	3-3: Measures of Variation	1-43 odd
Thurs, Aug 27	3-4: Measures of Relative Standing and Boxplots	1-35 odd
	Review	
Tue, Sept 1	<b>TEST I</b>	
Thurs, Sept 3	4-1: Review and Preview	
	4-2: Basic Concepts of Probability	1-41 odd
	4-3: Addition Rule	1-37 odd
Tue, Sept 8	4-4: Multiplication Rule: Basics	1-29 odd
	4-5: Multiplication Rule: Complements and Conditional Probability	1-33 odd
	4-6: Counting	1-35 odd
Thurs, Sept 10	5-1: Review and Preview	
	5-2: Probability Distributions	1-21 odd
Tue, Sept 15	5-3: Binomial Probability Distributions	1-43 odd
	5-4: Parameters for Binomial Distribution	1-19 odd
Thurs, Sept 17	Catch-Up Day	

Tue, Sept 22	Review	
<b>Thurs, Sept 24</b>	<b>Test II</b>	
Tue, Sept 29	6-1: Review and Preview	
	6-2: The Standard Normal Distribution	1-47 odd
Thurs, Oct 1	6-3: Applications of Normal Distributions	1-33 odd
Tue, Oct 6	6-4: Sampling Distributions and Estimators	1-17 odd
Thurs, Oct 8	6-5: The Central Limit Theorem	1-21 odd
Mon, Oct 12 – Tue, Oct 13	<b>Fall Break – No Class</b>	
Thurs, Oct 15	7-1: Review and Preview	
	7-2: Estimating a Population Proportion	1-37 odd
Tue, Oct 20	7-3: Estimating a Population Mean	1-37 odd, 38
Thurs, Oct 22	7-4: Estimating a Population Standard Deviation or Variance	1-21 odd
Tue, Oct 27	Review	
<b>Thurs, Oct 29</b>	<b>TEST III</b>	
Tue, Nov 3	8-1: Review and Preview	
	8-2: Basics of Hypothesis Testing	1-34 odd
Thurs, Nov 5	8-2: (concluded)	
	8-3: Testing a Claim About a Proportion	1-33 odd
Tue, Nov 10	8-3: (concluded)	
	8-4: Testing a Claim About a Mean	1-31 odd
Thurs, Nov 12	8-5: Testing a Claim About a Population Variance or Standard Deviation	1-17 odd
Tue, Nov 17	10-1: Review and Preview	
	10-2: Correlation	1-31 odd
Thurs, Nov 19	10-3: Regression	1-31 odd
<b>Tue, Nov 24</b>	<b>Test IV</b>	
Wed, Nov 25 – Fri, Nov 27	<b>Thanksgiving Holiday</b>	
Tue, Dec 1	<b>Review</b>	
<b>Mon, Dec 7 1:30 – 3:30</b>	<b>Final Exam</b>	

**Important Dates:**

**President's Convocation: Sept 2 (M, 2:00 pm)**  
**Labor Day: Sept 7 (M)**  
**Midterm: October 5 (M)**  
**Fall Break: October 12-13 (MT)**  
**Thanksgiving Holiday: November 25-27 (WRF)**