

# Math 2063: Introductory Statistics

## Section N01, Summer Semester 2019

**Instructor:** Fengrong Wei

**Office:** 222 Boyd Bldg

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**Class Time and Place:** MTWR, online (June 3 to July 26, 2019).

**Office Hours in office:** By appointment.

**Hours Credit:** 3 hours

**Prerequisites:** MATH 1101 or MATH 1111

**Courses Description:** A noncalculus-based introduction to methods of descriptive statistics, probability, discrete and continuous distributions and other fundamental concepts of statistics.

### Texts and Other Materials:

- Textbook: Discovering Statistics, Daniel T. Larose, W.H. Freeman and Company. 3rd Edition.
- Workbook(Optional): Workbook for Introductory Statistics, Karen Smith, Ayona Chatterjee, Fengrong Wei, Kendall Hunt publishing company.
- Additional reading and instructional materials are available on CourseDen (for example, lecture ppt, example problems, list of homework assignment).

**Topics:** Methods for describing sets of data, including descriptive statistics and histograms. Simple linear regression. Probability of discrete and continuous random variables, including the binomial and normal random variables. Sampling distributions, including the Central Limit Theorem, Hypothesis testing and Confidence intervals.

**Learning Outcomes:** Upon successful completion of this course, the students will know how to properly collect data, how to describe and analyze that data, and make inferences about the population under study based on the sample data collected. The students will also be aware of and able to interpret the statistics with which we are bombarded on a daily basis in the print media, on radio, and on television, to help make informed decisions about their lives.

### Communications with Professor:

- Students should check their UWG email accounts on a daily basis. As UWG e-mail is the official means of communication, only UWG issued e-mail addresses will be answered by Professor. CourseDen email is not utilized by the Professor (neither read nor answered).
- Please contact me directly through my UWG email (fwei@westga.edu) for anything that is confidential or private. All e-mails to the Professor are to be sent to fwei@westga.edu. If you would like to ask questions via email, please make sure you use MATH2063 as the subject line, so that I recognize that it is from one of you, and so that my spam filter do not accidentally delete your message. Emails will be answered within hours if not immediately. Although attempts will be

made to reply as quickly as possible, you should not assume that all the emails sent after 10:00 PM or over the weekend will be replied on the same day. I REPLY TO ALL EMAILS. IF YOU DO NOT GET A REPLY WITHIN A 24-HOUR PERIOD, ASSUME I DID NOT RECEIVE IT AND PLEASE RESEND.

- Students with any kind of disability are encouraged to contact me at the beginning of the semester so that I can make appropriate arrangements with Disability Services.
- You can come and meet me during my office hours by appointment in my office (Boyd 222). Please feel free to come and talk to me about any problems related to the course.

### Homework, Examinations and Grading:

- Homework: Homework is assigned after each section, but are not to be turned in and graded. Homework problems are meant to reflect the sort of questions you can expect in quizzes, tests and final exam. Problems are selected from Textbook and Workbook.
- Course Orientation Quiz: There will be a quiz after reading the course syllabus worth 5 points. (Open from June 3, 2019 to June 5, 2019.)
- Quizzes: There will be nine 20-minute quizzes worth 10 points each with 4 multiple choice problems. Quizzes dates are:  
 Quiz 1, June 6 (Covering sections 2.1, 2.2)  
 Quiz 2, June 11 (Covering sections 3.1, 3.2)  
 Quiz 3, June 13 (Covering sections 4.1, 4.2)  
 Quiz 4, June 20 (Covering sections 5.2, 5.3)  
 Quiz 5, June 25 (Covering sections 5.4, 6.1)  
 Quiz 6, June 27 (Covering sections 6.1, 6.2, 6.4)  
 Quiz 7, July 8 (Covering sections 7.1)  
 Quiz 8, July 10 (Covering sections 8.1, 8.2)  
 Quiz 9, July 15 (Covering sections 8.3, 9.1)  
 Three lowest quizzes will be dropped. Any change in quiz time will be notified in CourseDen. **Note: All the quizzes are needed to be finished before 3:00pm (EST) on the quiz day listed above. All the quizzes are open from the next day of the previous text due day listed above. Please look at CourseDen for detail time information.**
- Tests: There will be three 80-minute exams worth 50 points each with 25 multiple choice problems. Tests dates are:  
 Test 1, June 18 (Covering Sections 2.1, 2.2, 3.1, 3.2, 4.1, 4.2, 5.1)  
 Test 2, July 2 (Covering Sections 5.2, 5.3, 5.4, 6.1, 6.2, 6.4, 6.5, 6.6)  
 Test 3, July 17 (Covering Sections 7.1, 8.1, 8.2, 8.3, 9.1, 9.2)  
 The lowest test will be dropped. Any change in exam time will be notified in CourseDen. **Note: All the tests are needed to be finished before 3:00pm (EST) on the test day listed above. All the exams are open from the next day of the previous text due day listed above. Please look at CourseDen for detail time information.**
- Final: A multiple choice comprehensive exam worths 100 points with 40 multiple choice problems. (July 25, Thursday) It covers all the sections lists in Course Schedule below. **Note: Final exam is needed to be finished before 3:00pm (EST), July 25, 2019. It is open from July 18, 2019. Please look at CourseDen for detail time information.**

	5% Course Orientation Quiz	5pts
	30% Quizzes	30 pts
• Grade in Course:	40% Tests	40pts
	25% Final	25pts
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	Total	100pts

Grades will be assessed using the standard decade scale: 90-100=A, 80-89.999=B, 70-79.999=C, 60-69.999=D, <60=F.

### **Graded Assignment Rules:**

1. Each graded assignment (Quiz, Test, and Final) is due at 3:00 pm (EST) on the date listed on the calendar. All assignments are available after the first day of class, **WORK AHEAD. EXPECT DELAYS and/or COMPUTER PROBLEMS.**
2. Students need to read the appropriate reading materials on CourseDen, textbook Chapters and do the homework assignments. All the graded assignments will only cover the topics in the lecture ppt on CoursenDen. Example Problems on CoursenDen are additional examples from each section. Students need to read lecture ppt, example problems and textbook chapters to do the homework assignments and prepare for the quizzes, tests and final exams.
3. **In general, every quiz covers the new topics in the course schedule after the previous quiz.** Please look for quiz information for the details.
4. **There is NO make up Quiz, Test, or Final Exam.**
5. I expect you to finish graded assignments on time. I do not offer partial credit, so **you only have one chance of submitting the assignment correctly.** Failing to do so will result in a zero on the assignment. (Once the quiz or test is open, it is the only chance to submit the assignment correctly.)
6. All graded assignments must be submitted on CourseDen. No additions or corrections will be accepted once assignments have been submitted for grading. If an assignment is submitted in a format that I am unable to open, you will not have the opportunity to resubmit that assignment; therefore, you will receive a zero on that assignment.
7. **IT IS YOUR** responsibility to keep up with (store and secure) your work. Do not store your work on a lab PC, they are regularly purged of files.
8. Students are responsible to find out about any changes in due dates and course content.
9. All work must be done individually by students. Any student caught cheating will receive a failing grade and may be reported to the Office of Student Affairs.

**Extra Credit:** There is no extra credit for this course.

### **Academic Honesty Policy:**

- At the University of West Georgia we believe that academic and personal integrity are based upon honesty, trust, fairness, respect and responsibility. Students at West Georgia assume responsibility for upholding the honor code. West Georgia students pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery or threats, and stealing.
- You are responsible for the safeguarding of your computer account. Your account and network connection are for your individual use. A computer account is to be used only by the person to whom it has been issued. You are responsible for all actions originating through your account or network connection. You must not impersonate others or misrepresent or conceal your identity in electronic messages and actions.

**Americans with Disabilities Act:** If you are a student who is disabled as defined under the Americans with Disabilities Act and require assistance or support services, The Office of Disability Services will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations. If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please notify your instructor using the course email system within five business days after the beginning of the course and attach a PDF copy of your Student Accommodations Report (SAR) which is available only from the Office of Disability Services. Accommodation requests

require appropriate notice and paperwork.

**Academic Grievances:** Any student who believes that he or she has been discriminated against because of race, creed, color, sex, sexual orientation, national origin, religion, age, veteran status, or handicapped status should visit Appendix D in the Student Handbook to find the steps needed to be taken to file a claim. This can be found at <http://www.westga.edu/handbook/doc/SH-current.pdf>.

**Student Rights and Responsibilities:** Please carefully review the information at the following link: [http://www.westga.edu/assetsDept/vpaa/Common\\_Language\\_for\\_Course\\_Syllabi.pdf](http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf). The document at this link contains important information pertaining to your rights and responsibilities in this class. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.

**Additional Information:**

- Information Technology Services Helpdesk at 678-839-6587  
<http://www.westga.edu/its/index.5035.php>
- Distance Learning Student Guide 678-839-6248  
<http://www.westga.edu/distance/distancestudents/>
- <https://www.westga.edu/UWGSyllabusPolicies>

<b>Course Schedule</b>	<b>Date</b>
Read syllabus and Orientation Quiz	June 3
2.1 Graphs and Tables for Categorical Data	June 4
2.2 Graphs and Tables for Quantitative Data	June 5
3.1 Measures of Center	June 6
3.2 Measures of Variability	June 10
4.1 Scatterplots and Correlation	June 11
4.2 Introduction to Regression	June 12
5.1 Introducing Probability	June 13
5.2 Combining Events	June 17
<b>Online Exam 1</b>	<b>June 18</b>
5.3 Conditional Probability	June 19
5.4 Counting Methods	June 20
6.1 Discrete Random Variables	June 24
6.2 Binomial Probability Distribution	June 25
6.4 Continuous Random Variables and the Normal Probability Distribution	June 26
6.5 Applications of Normal Distribution	June 27
6.6 Normal Approximation to the Binomial Probability Distribution	July 1
<b>Online Exam 2</b>	<b>July 2</b>
7.1 Central Limit Theorem for Means	July 3
8.1 Z Interval for the Population Mean	July 8
8.2 t Interval for the Population Mean	July 9
8.3 Z Interval for a Population Proportion	July 10
9.1 Introduction to Hypothesis Testing	July 11
9.2 Z Test for the Population Mean: Critical-Value Method	July 15
9.4 t Test for the Population Mean	July 16
<b>Online Exam 3</b>	<b>July 17</b>
9.5 Z Test for the Population Proportion	July 18
10.1 Inference for Mean Difference-Dependent Samples	July 22
10.2 Inference for Two Independent Mean	July 23
Review Final exam	July 24
<b>Online Final Exam</b>	<b>July 25</b>

Table 1: Course Calender. The instructor reserves the right to change the schedule and/or requirements.