

MATH 2063-04 – Introductory Statistics
Hours Credit: 3 hours
Prerequisites: MATH 1111 or MATH 1101

COURSE INSTRUCTOR

Instructor: Dr. Elham Sohrabi
Office: Library room #311
Email: esohrabi@westga.edu
Phone: 678-839-3941
Class time & place: MW 8:00am-9:15am, Boyd 303
OFFICE HOURS: MW 11:00am-12:00pm & 3:30pm-5pm in my office or by appointment

REQUIRED COURSE MATERIALS

Textbook: Discovering Statistics, Daniel T. Larose, W.H. Freeman and Company. Third Edition.

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.

The following sections of the textbook will be covered: Section:

- 1.2 Introduction to Statistics
- 1.3 Gathering Data
- 2.1 Graphs and Tables for Categorical Data
- 2.2 Graphs and Tables for Quantitative Data
- 2.3 Further Graphs and Tables for Quantitative Data
- 3.1 Measures of Center
- 3.2 Measures of Variability
- 3.4 Measures of Relative Position and Outliers
- 3.5 Five-Number Summary and Boxplots
- 4.1 Scatterplots and Correlation
- 4.2 Introduction to Regression
- 5.1 Introducing Probability
- 5.2 Combining Events
- 5.3 Conditional Probability
- 5.4 Counting Methods
- 6.1 Discrete Random Variables
- 6.2 Binomial Probability Distribution
- 6.4 Continuous Random Variables and the Normal Probability Distribution
- 6.5 Applications of Normal Distribution
- 6.6 Normal Approximation to the Binomial Distribution
- 7.1 Central Limit Theorem for Means
- 7.2 Central Limit Theorem for Proportions
- 8.1 Z Interval for the Population Mean

- 8.2 t Interval for the Population Mean
- 8.3 Z Interval for a Population Proportion
- 9.1 Introduction to Hypothesis Testing
- 9.2 Z Test for the Population Mean: Critical-Value Method
- 9.4 t Test for the Population Mean
- 9.5 Z Test for the Population Proportion

CALCULATOR: Graphing calculators equivalent to the TI 83, 84, 85, and 86 will be allowed on the exam, as will scientific calculators. The TI-89 and other equivalent calculators will not be allowed. The instructor reserves the right to when you are allowed to use Calculators on in class graded assignments.

Courses Description

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

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.

COURSE ASSESSMENT

Students' mastery of course learning outcomes will be assessed using the following methods:

1. **MIDTERM EXAMS:** You will be given 4 in-class exams during the semester. Each exam will be worth 100 points. Midterm exams will be given at the regular class time. Actual exam dates will be announced at least a week earlier.
2. **FINAL EXAM:** Students will have a comprehensive final exam. Students are required to take the final exam on their scheduled day. **Missing the Final Exam will result in an automatic F grade regardless of your performance during the semester.**
3. **Homework:** Homework will be given but not assigned for a grade. Homework is for practice only but is very important in retaining information. Problems will be selected from the textbook.
4. **Quizzes:** There will be weekly quizzes (around 25 quizzes all together). The average of your quiz grades will count 15% towards your overall grade.
5. **No makeups:** There will be **NO make-up Midterm exams** unless there is an exigent circumstance (which needs to be documented). In case you miss a midterm exam for some emergency you need to provide documentation (for example, a Doctor's note), then a missed midterm exam will not be counted when computing your course grade. A student cannot miss more than one midterm exam for any reason whatsoever. His/her grade for the 2nd and more missed exam will be zero. Thus, there is NO make-up Quiz, Test, or Final Exam.

6. There is no extra credit in this course.

ASSESSMENT GRADING:

EXAMS:	60% (15% each)
QUIZZES:	15%
FINAL EXAM:	25%

Grading Scale:

90% - 100%:	A
80% - 89%:	B
70% - 79%:	C
60% - 69%:	D
<60%:	F

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.

American 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%20Language%20for%20Course%20Syllabi.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](http://www.westga.edu/its/index%205035.php)
- Distance Learning Student Guide 678-839-6248 <http://www.westga.edu/distance/distancestudents/>
- <https://www.westga.edu/UWGSyllabusPolicies>

IMPORTANT NOTE

I reserve the right to modify this syllabus at any time during the course of the term. If such a modification is substantial, I will reissue a revised syllabus and announce the change in class.

COURSE CALENDAR

WEEK	MONDAY	WEDNESDAY
1	Jan 7 th , Sec 1.2	Jan 9 th , Sec 1.3
2	Jan 14 th , 2.1	Jan 16 th , 2.2, 2.3
3	Jan 21 st , NO CLASS	Jan 23 rd , 3.1, 3.2
4	Jan 28 th , 3.3, 3.4	Jan 30 th , 3.5, Review Test 1
5	Feb 4 th , Test 1	Feb 6 th , 4.1, 4.2
6	Feb 11 th , 5.1, 5.2	Feb 14 th , 5.3
7	Feb 18 th , 5.4	Feb 20 th , Review Test 2
8	Feb 25 th , Test 2	Feb 27 th , 6.1
9	Mar 4 th , 6.2, 6.4	Mar 6 th , 6.5, 6.6
10	Mar 11 th , 7.1	Mar 13 th , 7.2, Review Test 3
11	Mar 18 th , NO CLASS	Mar 20 th , NO CLASS
12	Mar 25 th , Test 3	Mar 27 th , 8.1,
13	Apr 1 st , 8.2	Apr 3 rd , 8.3
14	Apr 8 th , 9.1, 9.2	Apr 10 th , 9.4
15	Apr 15 th , 9.5	Apr 17 th , Review Test 4
16	Apr 22 nd , Test 4	Apr 24 th , Review Final