

INTRODUCTORY STATISTICS
Statistics 145-501
Summer 2019

Syllabus

Instructor: Dr. James Farslow
Classroom: Arts & Sciences, Room 124
Class hours: Tuesday and Thursday, 9:00 – 11:45 am
Office: Academic Office, Arts & Sciences, ask Receptionist
Office Hours: Tuesday, 12:00 – 1:00, in the STEM Center in LRC;
or by appointment (email me)
Campus Phone: 505-925-8634 (only right before or right after class)
E-mail: jfars@unm.edu (Best way to contact me during the week. I do not respond to e-mail from Friday afternoon to Sunday evening.)

Course Description (from course catalog): Techniques for the visual presentation of numerical data, descriptive statistics, introduction to probability and basic probability models used in statistics, introduction to sampling and statistical inference, illustrated by examples from a variety of fields. Meets New Mexico Lower-Division General Education Common Core Curriculum Area II: Mathematics (NMCCN 1113). Prerequisite: (MATH 101 and MATH 102) or (MATH 118 and MATH 119) or MATH 120 or MATH 121 or MATH 123 or MATH 150 or MATH 162 or MATH 163 or MATH 180 or MATH 181 or MATH 264 or ACT Math ≥ 22 or SAT Math Section ≥ 540 or ACCUPLACER Elementary Algebra =66-103 or ACCUPLACER College-Level Math =37-68.

Student Learning Objectives: At the completion of this course students will be able to:

1. Use appropriate vocabulary, logic, and procedures for data exploration, data production, and inference;
2. Differentiate quantitative versus categorical variables, use graphs and tables to interpret data, and identify principles and measures used to analyze data;
3. Perform random sampling, know the difference between observational studies and experiments, and design a controlled experiment;
4. Discuss probabilities related to random variables;
5. Understand the terms population, sample, parameter, and statistic relative to sampling distributions, and understand the Law of Large Numbers and Central Limit Theorem;
6. Make inferences about quantitative populations;
7. Test for independence of categorical variables using chi-square test.

Text: "Introductory Statistics: Exploring the World Through Data", 2nd Ed., Gould/Ryan. (You do not need the online materials of the text for this course.)

Course Webpage on learn.unm.edu (Blackboard): Course information including this syllabus, assignments, and grades will be available via Blackboard. Data sets for assignments may also be posted to Blackboard.

I will also send out emails to the class periodically. Students should check email at least every couple of days.

Attendance Policy: Attendance will be taken each class as per UNM-Valencia policy. Students risk being dropped if they have more than four (4) absences. It is the student's responsibility to drop the course if the student no longer wishes to attend or is unable to attend. Students are responsible for finding out what they missed in class. Class begins at 9:00 am. At 9:05 students will be considered late. Students who are late or absent may receive a **zero** for any quiz or exam administered that day unless they have a valid excuse. **Do not be late for exams or quizzes.** Assignments will be printed and turned in by the end of class on the day they are due. No late assignments will be accepted without a valid reason. Do not wait until the last minute to print assignments. Equipment malfunction (computer, printer, etc.) is usually not a valid excuse for late assignments. Assignments will not be emailed to the instructor without discussing it with me first. **Exception to the above:** Contact me if you have a valid excuse (illness, death in the family, car accident, etc.) to arrange a make-up or turn in a late assignment, but you will need to provide evidence (doctor's note, etc.). Busy traffic is not an excuse. It is the prerogative of the instructor to decide whether an excuse is valid.

Academic dishonesty (from the UNM Catalog): "Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty on quizzes, tests or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; and misrepresenting academic or professional qualifications within or outside the University."

Copying and pasting material from a webpage into your homework assignment is plagiarism. The same method you use to look up the information on the internet is probably the same method I will use to check if you copied it. All I need to do is Google your answer, and yes, I do check.

Also, if you work on homework assignments together, make sure the assignment is in your own words and with your own graphs. Don't just copy what your study partner wrote down.

This also applies to anyone who allows someone to cheat off of them.

Electronic Device Usage: Students may use laptops or tablets to take notes. However, students will not use these devices for checking e-mail, web surfing, or other non-class activities during class. Cell phones will be silenced during class. No calling, talking, or texting during class. If you have an emergency call, take it outside the classroom please.

Student Behavior: Students will comport themselves as adults in an academic setting. Please do not engage in private conversations or act in an otherwise disruptive manner during class, or you will be asked to leave. If you need to ask the person next to you a question, make it short, do it quickly and quietly. I expect students to extend this courtesy to each other as well.

UNM-Valencia policy: No food or drinks in class.

No vaping or using tobacco products in class.

Quizzes: Quizzes will be short handout assignments at the beginning of Thursday's class, usually, that won't take more than five minutes. The quizzes will cover material since the previous quiz. Students should make sure to put their name on the quiz to receive credit. There will be 7 quizzes, and the lowest grade will be dropped. The quizzes are worth 20 points each. When graded quizzes are returned, students will have one opportunity to correct mistakes and return the quizzes by the next class for half credit.

Homework: Homework assignments will be posted on Blackboard in the Assignments folder. These assignments will consist of questions intended to test the student's ability to apply their understanding of concepts covered in class and to practice the math. There will be 6 homework assignments, and the lowest grade will be dropped. Homework assignments are worth 30 points each.

Exams: There will be one midterm exam and one final exam worth 100 points each. These exams will likely consist of a combination of 30 multiple choice questions worth two points each, and four problems to be solved worth 10 points each. The midterm will be over chapters 1 to 6, and the final will cover chapters 7 to 10. The questions in the final may include reference to material from the first half of the semester.

Grading Breakdown:

Quizzes (6 best @ 20 points each)	120
Homework Assignments (5 best @ 30 points each)	150
Midterm Exam (100 points)	100
Final Exam	100
Total points	470

Final grades will be awarded based on the percentage of points earned relative to total points.

Note: Please do **not** think at the end of the semester that if you have a 60% going into the final exam, you only need to make an 80% on the final to pass the course. **This is incorrect.** Remember the final exam is only 100 points out of 470. If you make 70% or higher on **all**

coursework and exams through the semester, including the final exam, you will pass.

Exception: Regardless of a student's grade going into the final, if a student completes the final with an "A" (at least a 90%), that student will at the very least pass the course with a "C". Any grade above passing will depend on the student's total points.

Please read "How to Succeed in This Course" under Course Information on Blackboard.

Grade	From	To
A+	98	100
A	93	97.99
A-	90	92.99
B+	88	89.99
B	83	87.99
B-	80	82.99
C+	78	79.99
C	70	77.99
D	60	69.99
F	0	59.99

Extra Credit: Students can earn an extra credit of 15 points for completing the Blackboard Orientation in their course list on Blackboard. At the end of the Orientation, you are supposed to receive a Completion Certificate. E-mail that certificate to me for credit by the deadline which will be announced the first week of class.

Students with Disabilities: If you have a documented disability, please make sure that Equal Access Services has contacted me as soon as possible to ensure that your accommodations are provided in a timely manner.

Testing Center: Use of the Testing Center will only be for those identified by Equal Access Services as requiring it, or for unusual circumstances.

Title IX Statement. In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg 15 -<http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>.

Course Outline

Week	Date	Chapter and Subject	Assignments Due
1	4-Jun	Course Intro / Ch 1 - Data	
		Ch 1 - Data / Ch 2 - Graphs	
	6-Jun	Ch 2 - Graphs	Quiz 1
		Ch 2 - Graphs	
2	11-Jun	Ch 3 - Numerical Summaries of Center and Variation	
		Ch 3 - Numerical Summaries of Center and Variation	
	13-Jun	Ch 3 - Numerical Summaries of Center and Variation	Quiz 2
		Ch 4 - Correlation and Regression	
3	18-Jun	Ch 4 - Correlation and Regression	HW1 Due
		Ch 4 - Correlation and Regression	
	20-Jun	Ch 5 - Modeling Variation with Probability	Quiz 3
		Ch 5 - Modeling Variation with Probability	
4	25-Jun	Ch 6 - Normal and Binomial Models	HW2 Due
		Ch 6 - Normal and Binomial Models	
	27-Jun	Ch 6 - Normal and Binomial Models	Quiz 4
		Ch 6 - Normal and Binomial Models	
5	2-Jul	Ch 7 - Sampling and Inference	HW3 Due
		Exam 1 - Ch 1 to 6	
	4-Jul	Holiday - No class	
		Holiday - No class	
6	9-Jul	Ch 7 - Sampling and Inference	Quiz 5; HW4 Due
		Ch 7 - Confidence Intervals for Proportions	
	11-Jul	Ch 8 - Hypothesis Testing for Proportions	Quiz 6
		Ch 8 - Hypothesis Testing for Proportions	
7	16-Jul	Ch 8 - Hypothesis Testing for Proportions	HW5 Due
		Ch 9 - Comparing Two Groups - t-tests of Means	
	18-Jul	Ch 9 - Comparing Two Groups - t-tests of Means	Quiz 7
		Ch 9 - Comparing Two Groups - t-tests of Means	
8	23-Jul	Ch 10 - Association Between Categorical Variables	HW6 Due
		Ch 10 - Association Between Categorical Variables	
	25-Jul	Final Exam 9:00 am - 11:00 am	

** Instructor reserves the right to make required changes during the course.