

INTRODUCTORY STATISTICS
Math 1350-501
Spring 2020

Syllabus

Instructor: Dr. James Farslow
Classroom: Arts & Sciences, Room 125
Class hours: Monday and Wednesday, 9:00 – 10:15 am
Office: Arts and Sciences, Room 132
Office Hours: Monday, 4:30 – 5:00, office;
Tuesday, 9:00 – 11:00, in the STEM Center in LRC;
Wednesday, 4:30 – 5:00, office;
Thursday, 9:00 – 11:00, in the STEM Center in LRC;
Friday, 9:00 – 11:00, office;
or by appointment (email me)
Campus Phone: 505-925-8613 (on campus 58613, 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 afternoon.)

Course Description: This course discusses the fundamentals of descriptive and inferential statistics. Students will gain introductions to topics such as descriptive statistics, probability and basic probability models used in statistics, sampling and statistical inference, and techniques for the visual presentation of numerical data. These concepts will be illustrated by examples from a variety of fields.

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

1. Explain the general concepts of statistics;
2. Explain the presentation and description of data;
3. Summarize data using measures of central tendency and variation;
4. Present the concepts of probability;
5. Compute point and interval estimates for proportions and means;
6. Perform hypothesis tests for proportions and means;
7. Analyze data using regression and correlation;
8. Perform a chi-square test for categorical data.

Text: None. Outline notes will be posted on Blackboard before class. Print these out to use for taking notes, or in conjunction with notes in your notebook. It is strongly urged that students take notes in class. If it's on the board, it's probably something you want to write down. Your notes **are** your study guide.

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

assignments may also be posted to Blackboard. I will usually also email the data sets. Sometimes there are issues with Blackboard and plain text files. Other supplementary materials may be posted to Blackboard.

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

Attendance Policy: Attendance will be taken each class as per UNM-Valencia policy. Students risk being dropped if they have more than four 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, either printed or handwritten, will be 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 not a valid excuse for late assignments. Assignments will not be emailed to me 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 my prerogative 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."

Additionally:

While I encourage you to look up information on the internet, copying and pasting material from a webpage into your homework assignment is plagiarism. Your answers should be in your own words. 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, so don't do it.

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 is also plagiarism.

Any instances of plagiarism will, at the very least, receive a zero for that portion of the assignment. This also applies to anyone who allows someone to cheat off of them.

During exams, make sure to keep answer sheets close to you or covered by the exam.

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, please take it outside the classroom. I do allow students to use their cell phones as calculators during quizzes or exams; however, if I catch a student using it for something else during that time they will lose that privilege.

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. Put them away or outside the door.

No vaping or using tobacco products in class.

Students should bring notebook paper, either loose-leaf or spiral, and something to write with to class every day.

Grading Breakdown:

Quizzes (15 best @ 10 points each)	150
In Class Group Assignments (5 @ 15 points each)	75
Homework Assignments (5 best @ 30 points each)	150
2 Exams (@ 150 points each)	300
Final Exam (comprehensive)	200
Total points	875

Quizzes: Quizzes will be short handout assignments usually at the beginning of Wednesday's class that won't take very long to complete. 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 16 quizzes, and the lowest grade will be dropped. The quizzes are worth 10 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.

In Class Group Assignments: These will be problems similar to homework questions, but students will work them out in class in groups, and then we will discuss them to make sure students understand the concepts and mechanics involved. Group assignments are worth 15 points each.

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. Some homework assignments have data files associated with them. These will also be posted on Blackboard and emailed to the class. There will be 6 homework assignments, and the lowest grade will be dropped. Students may work together on homework assignments; however, their answers should be in their own words. Homework assignments are worth 30 points each.

Exams: Two midterm exams will be administered worth 150 points each. These exams will likely consist of a combination of multiple choice and problems to be solved. The final exam will be of a similar format, worth 200 points, and will be comprehensive.

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 200 points out of 875. 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 exam 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 4 Apr.

Students can also earn extra credit by completing an additional homework problem which will be posted on Blackboard. The student will be given raw data and asked a statistical question. The student must figure out what type of analysis is needed, perform that analysis on the raw data, and answer the question. The extra credit problem is worth 30 points.

Students Requiring Equal Access Services: 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 as determined by me.

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 p. 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>.

Students Needing Assistance with the Material: Any student having difficulties with the material (and some of the material is not easy for many people) should try to see me during office hours which are posted above. If you cannot make office hours, email me at the email address above. You may also go to the Math Learning Center in the LRC. There are usually tutors there that can help you. Also, you may try the STEM center in the LRC (across the hall from the Math Learning Center). Every semester I encourage people to come see me or someone if they are having problems with the course, but too often people wait until it is too late to help them catch up. I hold office hours in the STEM center on Tuesday and Thursday mornings (9 to 11 am). If nothing else, they can be additional study sessions. You are probably not the only person with a particular question or problem. I can't help you if I don't know you're having difficulties, so come see me.

Course Outline

Week	Date	Subjects	Assignments Due
1	20-Jan	No Class - MLK Holiday	
	22-Jan	Data	
2	27-Jan	Data / Graphs	Quiz 1
	29-Jan	Graphs	Quiz 2
3	3-Feb	Numerical Summaries of Center and Variation	
	5-Feb	Numerical Summaries of Center and Variation	Quiz 3
4	10-Feb	Numerical Summaries of Center and Variation	HW 1
	12-Feb	Numerical Summaries of Center and Variation	Quiz 4
5	17-Feb	Correlation and Regression	
	19-Feb	Correlation and Regression	Quiz 5; GA 1
6	24-Feb	Modeling Variation with Probability	HW 2; Quiz 6
	26-Feb	Exam 1	
7	2-Mar	Modeling Variation with Probability	
	4-Mar	Normal and Binomial Models	Quiz 7
8	9-Mar	Normal and Binomial Models	GA 2
	11-Mar	Normal and Binomial Models	Quiz 8; HW 3
9	16-Mar	Spring Break	
	18-Mar	Spring Break	
10	23-Mar	Sampling and Inference	
	25-Mar	Sampling and Inference	Quiz 9
11	30-Mar	Confidence Intervals of Proportions	Quiz 10; HW 4
	1-Apr	Exam 2	
12	6-Apr	Hypothesis Testing for Proportions - z-test	Quiz 11
	8-Apr	Hypothesis Testing for Proportions - z-test	Quiz 12; GA 3
13	13-Apr	Hypothesis Testing for Proportions - z-test	HW 5
	15-Apr	Confidence Intervals of the Mean	Quiz 13
14	20-Apr	Comparing Two Groups - t-test	
	22-Apr	Comparing Two Groups - t-test	Quiz 14
15	27-Apr	Comparing Two Groups - t-test	GA 4
	29-Apr	Association Between Categorical Variables - chi-square	Quiz 15
16	4-May	Association Between Categorical Variables - chi-square	GA 5
	6-May	Association Between Categorical Variables - chi-square	HW 6; Quiz 16; Ex Cr
Mon	11-May	Final Exam 9:00 - 11:00	

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