

**INTRODUCTORY STATISTICS**  
**Statistics 145-503**  
**Spring 2018**

**Syllabus**

<b>Instructor:</b>	Dr. James Farslow
<b>Classroom:</b>	Arts & Sciences, Room 140
<b>Class hours:</b>	Monday and Wednesday, 4:30 – 7:00 – Mar 19 to May 12
<b>Office:</b>	Academic Office, Arts & Sciences, ask Receptionist
<b>Office Hours:</b>	Monday, 9:45 to 10:15 Wednesday, 12:00 to 1:00 pm, or by appointment (email me)
<b>Campus Phone:</b>	505-925-8634 (only during office hours)
<b>E-mail:</b>	jfars@unm.edu (best way to contact me)

**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 statistics 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", 2<sup>nd</sup> Ed., Gould/Ryan.

**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. Students are responsible for finding out what they missed in class. Class begins at 4:30 am. At 4:35 students will be considered late. Students who are late or absent will receive a **zero** for any quiz or exam administered that day. **Do not be late for exams or quizzes.** Assignments 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 the instructor. **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 what is a valid excuse.

**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.

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.

**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.

No vaping in class.

**Quizzes:** Quizzes will be short handout assignments at the beginning of Wednesday's class that won't take more than ten 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 5 quizzes, and the lowest grade will be dropped. The quizzes are worth 25 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. There will be 6 homework assignments, and all will count.

**Exams:** Three midterm exams will be administered worth 150 points each. These exams will likely consist of a combination of multiple choice, fill in the blank, and problems to be solved. The final exam will be of a similar format and will be comprehensive.

**Grading Breakdown:**

Quizzes (4 best @ 25 points each)	100
Homework Assignments (6 @ 25 points each)	150
2 Exams (@ 150 points each)	300
Final Exam (comprehensive)	200
Total points	750

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 750. If you have a 60% for the course going into the final, you would need close to 100% on the final to pass. If, on the other hand, you make 70% or higher on all coursework and exams through the semester, you will pass.

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

**Students with Disabilities:** If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that your accommodations are provided in a timely manner.

**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](http://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	19-Mar	Ch 1 - Data	
	21-Mar	Ch 2 - Graphs	Quiz 1
2	26-Mar	Ch 3 - Numerical Sumaries of Center and Variation	HW 1
	28-Mar	Ch 3	Quiz 2
3	2-Apr	Ch 4 - Correlation and Regression	HW 2
	4-Apr	Ch 5 - Modeling Variation with Probability / <b>Exam 1</b>	
4	9-Apr	Ch 6 - Normal and Binomial Models	HW 3
	11-Apr	Ch 6 - Normal and Binomial Models	Quiz 3
5	16-Apr	Ch 7 - Sampling and Inference	HW 4
	18-Apr	Ch 7 - Confidence Intervals / <b>Exam 2</b>	
6	23-Apr	Ch 8 - Hypothesis Testing for Proportions	HW 5
	25-Apr	Ch 8	Quiz 4
7	30-Apr	Ch 9 - Comparing Two Groups	HW 6
	2-May	Ch 10 - Association Between Categorical Variables	Quiz 5
<b>Wed</b>	<b>9-May</b>	<b>Final Exam 4:00 to 6:00 pm</b>	

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