Math 1350: Intro to Statistics

Mondays & Wednesdays, 1:30pm-2:45pm
UNM Valencia Workforce Training Center (VAWTC), Room 1207
MECS Division Chair: Ariel Ramirez, aramirez8@unm.edu

Please note: This syllabus is subject to change, if needed.

Office and Contact Information:

Office: A-123B
Email: ataylor19@unm.edu (this is the absolute best way to get in touch with me, quickly!)

Student Hours (Instructor-Led Help Sessions):

- ***Mondays & Wednesdays:*** 3pm-4pm in Zoom room indicated, below:
  Zoom: https://unm.zoom.us/j/98190874379 (no passcode, authenticated UNM Zoom account required)

- ***Tuesdays & Thursdays:*** 1:30pm-2:30pm in Math Tutoring Center (Learning Resource Center, near PASOS)

- **OR BY APPOINTMENT!**

UNM Course Description:

Welcome to Math 1350! Here is the UNM 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. *MATH 1130 is NOT a prerequisite for MATH 1350. *

Pre-requisites: Successful completion of MATH 1170 or (MATH 1215X + 1215Y) or MATH 1215 or MATH 1220 or MATH 1230 or MATH 1240 or MATH 1250 or MATH 1430 or MATH 1440 or MATH 1512 or MATH 1522 or MATH 2530, or minimum ACCUPLACER score of >=262 (QRAS) or >=233 (A&F), or ACT score of >=20, or SAT score of >=520. Meets University of New Mexico Core Curriculum Area 2: Mathematics and Statistics.

Student Learning Outcomes (SLOs):

At the completion of this course students will be able to:
- Explain the general concepts of statistics. (Chapter 1)
- Present and describe data. (Chapter 1 and Chapter 2)
- Summarize data using measures of central tendency and variation. (Chapter 2)
- Present the concepts of probability. (Chapter 3)
- Calculate probabilities using the standard normal distribution and relate them to areas under the curve. (Chapter 3)
- Give examples of independent and dependent variables. (Chapter 4)
- Calculate and interpret the linear correlation coefficient. (Chapter 5)
- Analyze data using regression and correlation. (Chapter 4 and Chapter 5)
- Select a simple random sample using a random number table, and understand the differences between various sampling techniques (SRS, stratified, convenience, etc.) (Chapter 8)
- Distinguish between populations and samples, and parameters and statistics. (Chapter 15)
- Interpret basic probabilities. (Chapter 12)
- Describe the relationship between the sampling distribution and the population distribution. (Chapter 15)
- Compute point and interval estimates. (Chapter 16)
- Perform hypothesis tests. (Chapter 17,20)
- Compare two means using t procedures (Chapter 21)

Technical Requirements:

- A Laptop/tablet (if you don't have one, they are available to rent for free in the UNM Valencia Library: http://valencia.unm.edu/library/index.html)
- High-Speed Internet Connection (highly recommended)

Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM and Internet connection speed can greatly affect performance. Be aware, some programs that use mathematics will not work well on mobile devices such as smart phones or tablets.

Microsoft Office products are available free for all UNM students!
UNM IT Software Distribution and Downloads page: http://it.unm.edu/software/index.html

Please update your contact information in LoboWeb: http://my.unm.edu/home
When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.

Web Conferencing
Web conferencing may be used in this course if needed for office hour appointments. If you are utilizing web conferencing:

- A USB headset with microphone is recommended. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.
- A high-speed internet connection is highly recommended for these sessions.   A wireless Internet connection may be used if successfully tested for audio quality prior to web conferencing.
 - You should also dress as you would when attending an in-person class, even if you do not turn on your video camera (mistakes happen -- please be properly clothed).
 - To create a UNM supported Zoom account, visit https://unm.zoom.us

Class Text and Program:

The text (or eText) for this course is:

- **The Basic Practice of Statistics, 9th edition by Moore, Notz and Fligner.**

- **Achieve (Macmillan) access will be required in order to complete learning curves and homework assignments.** There are unassigned StatTutor practice activities if you need some additional practice with the material before completing the assignments. If you don't mind having an electronic book, I would recommend getting the Achieve package that includes the e-text with the Achieve course.

A link to our course in Achieve is available, below.
https://achieve.macmillanlearning.com/courses/rzcbvm

Or, you can visit achieve.macmillanlearning.com, click "Find Your Course" and enter the CID:
Course ID: rzcbvm
The course ID helps identify the class you need to register for once you're in Achieve.

Note: Achieve is a paid access program. Click on the "RedShelf Course Materials" tab in Canvas to obtain an access code for Achieve for the semester. This will charge your Bursar's account for the e-book + Achieve access. There is a **14 day temporary access** to the online Achieve course, if you need it. If this is the case, you must use the same UNM email address to acquire paid access that you used to acquire temporary access, otherwise you will lose that work progress on Achieve.

Attendance Policy:

Attendance is **highly** recommended, but not required (though there are graded activities in class that if you miss, will hurt your grade). I do understand that sometimes life circumstances can prevent students from coming to every class. This is your class, you're paying for it, you can decide whether or not you show up. That being said, coming to class is one of the best ways to help ensure your success in passing. Being present, participating, and staying on top of the material are great contributors to success.

Submitting Assignments (VERY IMPORTANT – READ CAREFULLY):

You will submit all written assignments (quiz/project/exam) in class by the due date. All assignments and work therein should be neat, legible, appropriately organized, and include detailed and well-justified work. ***Any work that is illegible, or that lacks proper substance/explanation/justification will not receive credit. Please make sure to show ALL your work so that partial credit can be awarded for simple mistakes.*** Remember, you can use underline words to explain your thinking alongside your mathematics. Conveying your thought process to me is the most important element in your written work; if you understand the process and the idea, and mess up on arithmetic somewhere, you will earn the vast majority of the credit for a given problem. However, if you just have an answer (which is the result of an arithmetic error), and you haven't explained your thought process, I have nothing to award credit for without evidence of your understanding.

Written Assignments/Assessments:
All written assignments must be submitted in class.

Late Passes:
You have 3 late passes for the semester. Using a late pass grants you up to 5 additional days to submit an assignment. You may use them on **any homework or project, but NOT assessments such as quizzes and exams.** In order to use a late pass, you must let me know _in advance_ of the due date. You do not need to present me with a doctor's note, or provide any reason for using a late pass (it doesn't matter whether you're sick or going to a concert – that's up to you). However, I'd highly recommend saving them until you really **need** them. Once you've used your passes, that's all you get. If you have incredibly emergent circumstances (long-term stay in hospital, etc.), just let me know, and I will examine those circumstances on a case-by-case basis. In those cases, if approved, you may be asked to provide evidence of that circumstance.

Submitting Projects:
Projects should be treated as a report, and submitted in the format of a report. These should NOT be handwritten, and should include computer-generated graphs/tables/visual representations of your data. Please report the source of your data, as well as any programs/tools you used to complete your analysis. Please note that you may find computers, printers, and anything else you may need in order to submit a report in the UNM Valencia Library.

Missing Quizzes and Exams:
If you must miss a quiz or exam, it is your responsibility to let me know in advance, so that you have adequate time to set an appointment to make it up *before* the assessment, during my office hours, or at a university/college testing center underline with a proctor. If you must use a university testing center, and there isn't a proctor, you will not be able to make up the assessment, and it will be counted as a 0. The proctor must reach out to me and confirm they are able to proctor your assessment.

Communication with Instructor:

The absolute MOST RELIABLE way to communicate with me as quickly as possible is to **send me an email**. If you ask a question via the homework platform, or via Canvas messages, I won't see it as quickly as if you send me an email. I routinely check for student emails, Monday through Friday, at various times throughout the morning, afternoon and evening, as well as occasionally on weekends. Expect a response no later than 24-48 hours. If I haven't responded within 48 hours, please resend your email, as it may have (accidentally) been overlooked!

Expectations for Students:

Please note that in order to be successful in this course, and in mathematics courses in general, you will need to spend a fair amount of time each week working on this course.

Here are my recommendations for the **minimum** amount of time you should be spending in this course, each week.

Learning Curves/Homework: 4-6 hours/week
Student Hours: 30 min to 1 hour per week.
General Studying: 1-3 hours/week outside of homework and office hours. Can include looking over notes from class, looking over notes posted in Canvas, practicing with StatTutor activities in Achieve.

I'd highly recommend taking notes over things that stand out to you in class: examples, impactful things that are said that make sense to you, or interesting questions posed by students and discussed in class. There will be a fair amount of discussion of problems from the text, and I will post power point slides from the publisher for some notes on definitions, with some examples.

Course Structure:

This course will consist of the following graded components:

Homework (15%):
(Achieve Chapter Homework Assignments)
- You'll have ~11 chapter homework assignments.
 - Your lowest homework score will be dropped.
 - On each question for a given homework assignment, you will have unlimited attempts, but will lose 5% of that question's points per incorrect attempt (so, be careful when completing homework -- if you aren't yet prepared to complete the assignment, complete the Learning Curves first to build confidence with the material *before* attempting the homework).
 - Late homework can only be accepted with the "3 late pass policy."

Learning Curves (5%):
  (Achieve Chapter Learning Curves)
 - No Learning Curves will be dropped.
 - Learning Curves are an introductory assignment to a given chapter. They help to introduce terminology and typically take students roughly 20-40 minutes to complete depending on familiarity with the material. They are graded based on completion.
- Late Learning Curves can only be accepted with the "3 late pass" policy.

In-class Activities (10%):
-This is a participation grade. If you show up and participate in the activity on a given activity day, you get a 100%. If you don't, it's a 0%. You may miss 1 of these and have its associated 0 dropped. The purpose of these activities is to prepare before each quiz, and they cannot be made up (thus, the free drop). I'd highly recommend attending for these, as they are your best preparation for quizzes, and are valuable discussion time with your classmates.

Quizzes (10%):
~4 in-class, written quizzes. Each will cover 2-3 chapters worth of material.
-Your lowest quiz score will be dropped. Quizzes can ONLY be made up before-hand during office hours, unless there is an emergency circumstance. There is a built-in dropped quiz just in case you need to miss one for a non-emergency circumstance.

Projects (10%):
-You will have 2 projects that will involve creating or gathering your own data set and using some of the concepts discussed in the class to critically examine and draw conclusions from this data set.
-Late projects can only be accepted with "3 late pass" policy.

Midterm Exam (25%):
The midterm exam will be given on October 11, 2022.

Final Exam (25%):
The comprehensive final exam will be given in class on Wednesday, December 13, 2022 from 1:30pm-3:30pm.

For written assessment submissions such as exams/projects, you should typically expect your grades within one week. Assignments through Achieve should offer immediate grading upon submission.

Grading Policy:

Cumulative Average at End-of-Course	Final Grade in Class
$96.5 \leq Avg \leq 100+$	A+
$93 \leq Avg < 96.5$	A
$89.5 \leq Avg < 93$	A-
$86.5 \leq Avg < 89.5$	B+
$83 \leq Avg < 86.5$	B
$79.5 \leq Avg < 83$	B-
$76.5 \leq Avg < 79.5$	C+
$69.5 \leq Avg < 76.5$	C
$66.5 \leq Avg < 69.5$	D+
$63.5 \leq Avg < 66.5$	D
$59.5 \leq Avg < 63.5$	D-
$Avg < 59.5$	F

Important Semester Deadlines:

Fall 2023: 16-week classes (deadlines will be different for first and second 8-week classes)

• Monday, August 21st: First day of class, class available in Canvas.
• Friday, September 1, by 5:00 PM: Last day to add a class or to change credit hours or grade mode in LoboWEB.
• Monday, September 4th: Labor Day: No class.
• Friday, September 8th, 5:00pm: Last day to drop without "W" grade and with 100% refund on LoboWEB
• October 12th and 13th: FALL BREAK: No class.
• Friday, November 10th: Last day to drop without Dean's permission on LoboWEB. Will receive "W" grade and will be responsible for tuition for the course.
• November 23rd and 24th: Thanksgiving break: No class.
• Thursday, December 7th: Last day to drop with Dean's permission. Will receive "W" grade and will be responsible for tuition for the course.
• December 11th - 16th: Finals week

UNM Valencia Resources & Support:

Support:

PASOS Resource Center (505) 925-8546, mailto:pasos@unm.edu. The Resource Center is an on-campus center that serves as a "one-stop" for all non-academic needs of UNM-Valencia students.

Student Health and Counseling (SHAC) at (505) 277-3136. If you are having active respiratory symptoms (e.g., fever, cough, sore throat, etc.) AND need testing for COVID-19; OR If you recently tested positive and may need oral treatment, call SHAC.

LoboRESPECT Advocacy Center (505) 277-2911 can offer help with contacting faculty and managing challenges that impact your UNM experience.

Accommodations:

UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center at arcsrvs@unm.edu or by phone at 505-277-3506. The UNM-Valencia Equal Access Services (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu.

Support: Contact me in student hours, or at my email, and contact The UNM-Valencia Equal Access Services (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu., Or Accessibility Resource Center (https://arc.unm.edu/) at mailto:arcsrvs@unm.edu (505) 277-3506.

Tutoring:

Resources to support study skill and time management are available through UNM-Valencia Learning Commons (Tutoring).

Tutoring is available to you in math, science, writing, and other subjects through the Learning Commons: Learning and STEM Centers and Writing Center. In person tutoring is in these centers in the LRC (the building that also has the library). Tutoring in Zoom and, for writing, through email, is also available.

Making use of tutoring is a fantastic way to use your resources and set yourself up to learn deeply and well in your courses.

To schedule an appointment, please go to: Learning Commons Bookings

If you are making an email appointment with the Writing Center, email your draft to tutor@unm.edu after you fill out the form above.

If you have difficulty with the scheduling link above, would like an appointment in a subject not listed at that link, or have a question, email tutor@unm.edu. You'll get answers during business hours Monday through Friday. The webpage, with more details about available hours, is here: Learning Commons: Tutoring Services webpage.

At UNM Main Campus, you may contact: Center for Academic Program Support (CAPS). Many students have found that time management workshops can help them meet their goals (consult (CAPS) website under "services").

Support: Many students have found that time management workshops or work with peer tutors can help them meet their goals. These and are other resources are available through PASOS (Pathways to Articulation and Sustainable Opportunities for Students), TRIO Student Support Services, and Student Learning Support at the Center for Teaching and Learning.

Connecting to Campus and Finding Support: UNM has many resources and centers to help you thrive, including opportunities to get involved, mental health resources, academic support including tutoring, resource centers for people like you, free food at Valencia Campus Food Pantry, and jobs on campus. Your advisor, staff at the resource centers and Academic Affairs Office, and I can help you find the right opportunities for you.

UNM Statements & Policies:

Land Acknowledgement:
Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

Citizenship and/or Immigration Status:
All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: http://undocumented.unm.edu/.

COVID-19 Health and Awareness. UNM is a mask friendly, but not a mask required, community. If you are experiencing COVID-19 symptoms, please do not come to class. If you do need to stay home, please communicate with me at [ ]; I can work with you to provide alternatives for course participation and completion. Let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. Please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.

Credit-hour statement:
This is a three credit-hour course. Class meets for two 75-minute sessions of direct instruction for fifteen weeks during the Fall 2023 semester.

Title IX:

Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus. Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct and reporting, please see: https://policy.unm.edu/university-policies/2000/2740.html.

Support: LoboRESPECT Advocacy Center, the Women's Resource Center, and the LGBTQ Resource Center all offer confidential services.

Respectful and Responsible Learning:
We all have shared responsibility for ensuring that learning occurs safely, honestly, and equitably. Submitting material as your own work that has been generated on a website, in a publication, by an artificial intelligence algorithm, by another person, or by breaking the rules of an assignment constitutes academic dishonesty. It is a student code of conduct violation that can lead to a disciplinary procedure. *Please ask me for help in finding the resources you need to be successful in this course. I can help you use study resources responsibly and effectively.* Off-campus paper writing services, problem-checkers and services, websites, and AIs can be incorrect or misleading. Learning the course material depends on completing and submitting your own work. UNM preserves and protects the integrity of the academic community through multiple policies including policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (https://pathfinder.unm.edu) and the *Faculty Handbook* (https://handbook.unm.edu).

Academic Integrity:
Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: https://policy.unm.edu/regents-policies/section-4/4-8.html. The policy states:

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, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student 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 is defined as:
"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.