

BADM 700: Statistics for Decision Making

Spring 2022

Course Information

Professor Information:

Professor: Dr. Katherine Lacy (pronouns: she/her; preferred names: Katherine, Dr. Lacy, Professor Lacy)

Office: AB 319E

Office Phone: 775-682-9370; **Cell Phone:** 775-391-0103

Email: katherinelacy@unr.edu

Office Hours: Send me an email or WebCampus message. I am happy to meet via zoom or in person.

Email:

Please include the course and section number when sending me an email so I know exactly which class you are referring to.

I will read and respond to course-related emails in a timely fashion (within 48 business hours) between the hours of 9 AM and 5 PM, Monday – Friday. However, I hold the right to not respond to emails I perceive as unprofessional.

Course Description:

The following course description is from the UNR catalog:

Statistical inference and hypothesis testing; multivariate regression and analysis of variance; emphasis on applied methods, changing technology and computer applications.

The class is designed to familiarize students with techniques used to analyze data and gain insight into specific questions about populations. The material in this course will be “applied”; that is, you will learn how to apply the appropriate statistical techniques to data with the intention of improving your decision-making ability. Most often, data is collected, tested, and analyzed because it has managerial and/or research implications. Throughout this course, you will be asked to relate and apply what you learn to your work or field of work.

Prerequisite(s): Must be a degree seeking student in a business graduate program.

Required texts, course materials:

Textbook and Subscription

Business Statistics: Communicating with Numbers by Jaggia and Kelly

A subscription to the McGraw-Hill Connect system are **required** for this course. You can access the Connect page for this course through WebCampus. Go to “McGraw-Hill Connect” on the left side menu and create an account or sign in. While the textbook is optional, the Connect subscription is required and part of the first-day access program through the University. The course relies heavily on my lecture videos instead of the textbook. If you choose to not watch the videos, you will miss the Excel tutorials which are not part of the textbook. The textbook should be used as supplementary to the lecture videos

Microsoft Excel

You are **required** to use Excel during each class period. Microsoft Word, Excel, and PowerPoint, are free for you to download through the University. Here is a link to the instructions: <https://oit.unr.edu/services-and-support/software-and-online-applications/software-purchasing-and-installation/microsoft-office-365-for-personal-computers/install-microsoft-office-for-home-student/>.

Accessibility of Required Materials

Please note that I have made every effort to ensure that the required materials in this courses are universally accessible. If you require specific accessibility accommodations after reviewing the course material, and/or experience any issues accessing third party web/multimedia content, please contact me and the Disability Resource Center at the start of the semester to discuss your needs.

Computer Software:

Excel is the software of choice in this class. There are many statistical software packages available and you may use another package if you are comfortable with that package (Stata, SAS, R).

Student Learning Outcomes:

Upon completion of this course, students will be able to

1. correctly identify data types and manage databases using software.
2. recognize and apply the appropriate graphical and statistical descriptive and/or inferential techniques to the data being analyzed.
3. perform and interpret the statistical inference techniques of hypothesis testing, multivariate regression and analysis of variance.
4. proficiently discuss and present statistical outcomes in reports.
5. demonstrate understanding of how statistical analysis is used to assist decision making in business.
6. analyze and assess statistical information available from business, government, or research organizations

More details regarding course topics and learning objectives for each week are available in the weekly modules.

Videos:

Class lecture will be provided through pre-recorded videos, which will remain on WebCampus the entire semester. This allows you to refer back to the videos at any time. In addition to lecture videos, there will be excel tutorials in most modules

Each week will have its own module where you can find the lecture notes (Word or PowerPoint documents you can fill in while watching the video), lecture videos, excel files, excel tutorials, and links to the homework.

Microsoft Word, Excel, and PowerPoint, are free for you to download through the University. Here is a link to the instructions: <https://oit.unr.edu/services-and-support/software-and-online-applications/software-purchasing-and-installation/microsoft-office-365-for-personal-computers/install-microsoft-office-for-home-student/>.

Homework:

Graded homework through Connect will be assigned on a regular schedule and due **Sunday at 11:59 PM**. You will be notified in class when changes are made to the schedule. You will have one attempt to complete the homework, but you will have unlimited access to the “check my work” button. I highly recommend you check your work before submitting the assignment.

All homework assignments automatically submit at 11:59 PM and open for study attempts after the due date. As a result, extensions cannot be granted after the assignment deadline has passed. If you need an extension, it is best if you give me 24 hours’ notice.

I will drop the lowest HW grade at the end of the semester.

Exams:

There will be three progress tests in this course. They are unproctored and will be taken in Connect. You will be **required** to use Excel during the tests.

You have 120 minutes to complete each test. They are timed so please do not open a test until you are ready to take it. The timer starts once your hit “begin.”

Exam 1	Due: Sunday, February 27th at 11:59 PM	Material covered: Modules 1 – 4
Exam 2	Due: Sunday, March 27th at 11:59 PM	Material covered: Modules 5 – 8
Exam 3	Due: Sunday, April 17th at 11:59 PM	Material covered: Modules 9 – 11

There will be no make-up exams for missed exams (see the attendance section for my exam grading policy).

Data Analysis Reports:

The data analysis report (DAR) involves collecting data, conducting hypothesis tests, building a multiple linear regression model, and interpreting your results.

Throughout the semester, there will be 4 sub-reports due to help guide you to a final data analysis report. The sub-reports are scheduled as follows:

Sub-Report 1	Due Sunday, February 6th at 11:59 PM
Sub-Report 2	Due Sunday, February 20th at 11:59 PM
Sub-Report 3	Due Sunday, March 13th at 11:59 PM
Sub-Report 4	Due Sunday, April 3rd at 11:59 PM

Please see the sub-report guidelines for more details.

The final report is due on **April 17th at 11:59 PM** and is expected to be 10 to 15 pages that includes a description of the data and questions being addressed, descriptive data analysis, test analysis (methods), results and conclusion. You are encouraged to use data related to your work of field of study. Detailed assignment information and guidelines can be found in the Data Analysis Report Instructions.

Along with the DAR is a **mandatory presentation**. You will record a brief video of yourself discussing your findings. This presentation video is mandatory and required to verify identification. Your face and ID must be visible. You **MUST** complete it in order to pass the class. Failure to do so will result in a failing grade for the class.

Before beginning the presentation, you will be required to present photo identification. You may use any variety of software or app to record yourself, such as Zoom, your smart phone, computer webcam, etc. If you are not able to post a video yourself, or are unable to acquire a valid photo ID, you will not be able to continue in this course.

Extra Credit:

There are two types of extra credit you can receive: 1) Introductory Video and 2) identifying lecture video mistakes. During the first week of class, if you post a short video introducing yourself, you will receive an additional 5 points on a homework assignment.

For all course weeks, if you discover an error in the lecture videos and inform me of this error via a WebCampus message or email, you will receive an additional 5 points on a homework assignment. Each error you identify is worth 5 points. There is not extra credit limit and your homework scores can exceed 100%.

Grading Criteria, Scale, and Standards:

Scores in seven major performance areas will determine your grade:

Homework	10%
Data Analysis Final Report	30%
Data Analysis Sub-reports	15%
Exams	45%

Course letter grades will be assigned on a straight scale. There will not be any curving of the final grade.

A	93 – 100
A-	90 – 92.9
B+	87 – 89.9
B	84 – 86.9

B-	80 – 83.9
C+	77 – 79.9
C	74 – 76.9
C-	70 – 73.9

D+	67 – 69.9
D	64 – 66.9
D-	60 – 63.9
F	< 60

Course Calendar or Topics Outline:

Week	Module	Topics	Reading	Assignments
January 24 th – 30 th	1	Overview of Statistics and Data Collection; Descriptive Statistics	Chapters 1 & 3 (excluding 3.5 & 3.8)	Intro Video (Extra Credit) Homework 1
January 31 st – February 6 th	2	Probability	Chapter 4	Homework 2 DAR: Job Description
February 7 th – 13 th	3	Continuous Probability Distributions	Sections 6.1 & 6.2	Homework 3
February 14 th – 20 th	4	Sampling and Confidence Intervals	Section 7.2, 7.3 & 8.1 – 8.3	Homework 4 DAR: Data Set
February 21 st – 27 th	5	One-sample hypothesis Tests	Chapter 9	Exam 1 Homework 5
February 28 th – March 6 th	6	Two-sample hypothesis Tests	Chapter 10	Homework 6
March 7 th – 13 th	7	Chi-Square Tests	Sections 12.1 & 12.2	Homework 7 DAR: Hypothesis Test
March 14 th – 20 th	8	ANOVA	Section 13.3	Homework 8
March 21 st – 27 th	9	Correlation and Introduction to regression	Chapter 14	Exam 2 Homework 9
March 28 th – April 3 rd	10	Significance Tests and Dummy Variables	Sections 15.1 & 17.1	Homework 10 DAR: Regression Variables
April 4 th – April 10 th	11	Common Violations	Sections 15.4	Homework 11
April 11 th – April 17 th	12	Data Analysis Report Exam Review		Exam 3 Data Analysis Report DAR Video

University Policies

Statement on Academic Dishonesty:

You are expected to follow all assignment policies, be honest and submit your own work throughout this course. The use of “study assistance” websites such as Chegg, Course Hero, Brainly, etc. is strictly prohibited on ALL assignments. While you may work on the Homework with your classmates, you may NOT seek assistance on the quizzes and exams from anyone besides Dr. Lacy. If you are caught cheating you will be charged with Academic Dishonesty. Please see the University Statement below with a link to the specific UAM section.

"The University Academic Standards Policy defines academic dishonesty, and mandates specific sanctions for violations. See the University Academic Standards policy: [UAM 6,502](#)."

WARNING: I check Chegg to make sure my exam questions are not present on their website before, during, and after the exam. My exams are also designed to easily identify cheaters. I take exam integrity VERY seriously and most exam cheating situations results in the student receiving a permanent F in the course.

I do understand that this course can be challenging, but that is no excuse for cheating. I made the pre-recorded videos so you can watch and re-watch them at your own pace. I am also available to meet via zoom to review the material you are struggling with. It is in your best interest to come to me for assistance and not rely on websites like Chegg for assistance. Being provided the answers does not aide in your learning of the material. Also, many Chegg answers and steps to solving a problem are incorrect, which is why it is very easy to identify Chegg users.

Statement of Disability Services:

“Any student with a disability needing academic adjustments or accommodations is requested to speak with me or the [Disability Resource Center](#) (Pennington Achievement Center Suite 230) as soon as possible to arrange for appropriate accommodations.”

This course may leverage 3rd party web/multimedia content, if you experience any issues accessing this content, please notify your instructor.

Statement for Academic Success Services:

"Your student fees cover usage of the [Math Center](#) (775) 784-4433, [Tutoring Center](#) (775) 784-6801, and [University Writing Center](#) (775) 784-6030. These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign of a responsible and successful student."

Statement on Audio and Video Recording:

Student-created Recordings

"Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded."

Instructor-created Recordings

Class sessions may be audio-visually recorded for students in the class to review and for enrolled students who are unable to attend live to view. Students who participate with their camera on or who use a profile image are consenting to have their video or image recorded. If you do not consent to have your profile or video image recorded, keep your camera off and do not use a profile image. Students who un-mute during class and participate orally are consenting to have their voices recorded. If you do not consent to have your voice recorded during class, keep your mute button activated and only communicate by using the "chat" feature, which allows you to type questions and comments live.

Statement on Failure to Comply with Policy (including as outlined in this Syllabus) or Directives of a University Employee:

"In accordance with section 6,502 of the University Administrative Manual, a student may receive academic and disciplinary sanctions for failure to comply with policy, including this syllabus, for failure to comply with the directions of a University Official, for disruptive behavior in the classroom, or any other prohibited action. "Disruptive behavior" is defined in part as behavior, including but not limited to failure to follow course, laboratory or safety rules, or endangering the health of others. A student may be dropped from class at any time for misconduct or disruptive behavior in the classroom upon recommendation of the instructor and with approval of the college dean. A student may also receive disciplinary sanctions through the Office of Student Conduct for misconduct or disruptive behavior, including endangering the health of others, in the classroom. The student shall not receive a refund for course fees or tuition."

Statement on Maintaining a Safe Learning and Work Environment

The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns, please contact the University's Equal Opportunity & Title IX office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit the [Equal Opportunity and Title IX](#) page.

Statement on COVID-19 Policies

Face Coverings

In response to COVID-19, and in alignment local, state, and U.S. Center for Disease Control guidelines, face coverings are required at all times in all UNR indoor public spaces, including classroom, laboratory, studio, creative space, or any type of in-person instructional activity, and public spaces. Furthermore, individuals who have not been fully vaccinated against COVID 19 are required to wear a face covering at all times while on campus, including all indoor and outdoor public spaces.

A "face covering" is defined as a "covering that fully covers a person's nose and mouth, including without limitation, cloth face mask, surgical mask, towels, scarves, and bandanas" (State of Nevada Emergency Directive 024).

Students that cannot wear a face covering due to a medical condition or disability, or who are unable to remove a mask without assistance may seek an accommodation through the Disability Resource Center.

Social Distancing

In alignment with State of Nevada guidelines, social distancing is no longer required.

Disinfecting Your Learning Space

Disinfecting supplies are provided for you to disinfect your learning space. You may also use your own disinfecting supplies.

COVID-19, COVID-19 Like Symptoms, and Contact with Someone Testing Positive for COVID-19

Students testing positive for COVID 19, exhibiting COVID 19 symptoms regardless of vaccination status will not be allowed to attend in-person instructional activities and must leave the venue immediately. Students should contact the [Student Health Center](#) or their health care provider to receive care and who can provide the latest direction on quarantine and self-isolation. Contact your instructor immediately to make instructional and learning arrangements.

Accommodations for COVID 19 Quarantined Students

For students who are required to quarantine or self-isolate due to 1) COVID 19 infection or 2) exposure while not vaccinated, instructors must provide opportunities to make-up missed course work, including assignments, quizzes or exams. In courses with mandatory attendance policies, instructors must not penalize students for missing classes while quarantined.

Failure to Comply with Policy (including as outlined in this Syllabus) or Directives of a University Employee

In accordance with section 6,502 of the University Administrative Manual, a student may receive academic and disciplinary sanctions for failure to comply with policy, including this syllabus, for failure to comply with the directions of a University Official, for disruptive behavior in the classroom, or any other prohibited action. "Disruptive behavior" is defined in part as behavior, including but not limited to failure to follow course, laboratory or safety rules, or endangering the health of others. A student may be dropped from class at any time for misconduct or disruptive behavior in the classroom upon recommendation of the instructor and with approval of the college dean. A student may also receive disciplinary sanctions through the Office of Student Conduct for misconduct or disruptive behavior, including endangering the health of others, in the classroom. The student shall not receive a refund for course fees or tuition.

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