

BADM 321 – Business Statistics II, 3 credits

Dakota State University

Spring 2020, Section DT1

Online

Last Day to Drop Course without transcript entry – January 22, 2020

Last Day to Drop Course with a “W” – April 6, 2020

Contact Information

Dr. Rob Girtz

Office: East Hall, Room 308

Office Hours: Tues/Thurs 2:30 – 4:00, Wed 10:00 – 1:00 and 2:00 – 4:00

Phone: (605) 256 - 5163

Email: robert.girtz@dsu.edu

Course Description (from catalog)

This course focuses on statistical inference and forecasting. Topics, with business applications, include hypothesis testing, analysis of variance, correlation, simple linear and multiple regression and time series analysis. Utilization of statistical software is emphasized.

Course Prerequisites

BADM 220 – Business Statistics or MATH 281 – Introduction to Statistics

Description of Instructional Methods

This class will be taught online through lecture notes, lecture audio/video, demonstration of relevant statistical problems and Minitab exercises, provision of external resources, student completion of homework assignments, and student completion of exams.

The class proceeds on (what I call) a block basis. There will be five blocks, followed by a week to complete the final exam. Each block will be three weeks long. Each block starts on a Monday and closes three Fridays later. This gives one free Saturday/Sunday weekend between each block. Check the schedule at the bottom of this syllabus for complete schedule-related details.

As far as graded items are concerned, there will be a homework assignment and an exam included with each block. The homework assignment will be due prior to the final week in the given block. The final week of each block will be dedicated fully to that block’s exam. Again, check the schedule at the bottom of the syllabus for complete schedule-related details.

Students must complete all course requirements in their appropriate sequence and in a timely fashion. Students are required to visit the class website on D2L to check the course calendar, obtain notes, read applicable announcements, and submit homework assignments. Students are also responsible for keeping up with and adhering to the due dates and other instructions posted on the D2L course calendar and announcements section.

Materials Needed

1. Textbook: David R. Anderson et. al, *Statistics for Business and Economics*, 13th Edition [ISBN-10: 1337094161]
2. Computer Software: Minitab 19
you will need to rent a personal copy, which is available at: <http://www.onthehub.com/minitab/>
3. Scientific calculator (non-phone and non-graphing)
4. The resources to capture and send images (via smartphone or via scanner)

Options for textbook acquisition: You may choose to obtain the textbook via a subscription platform called Cengage Unlimited. This is a product that allows you semester-long access to (nearly) all Cengage published textbooks, for a flat fee.

<https://www.cengage.com/unlimited>

Or, you can choose to obtain just the textbook. If you can find a used copy, that's fine with me.

Course Goals

BBA Business Core Student Learning Outcomes (required for ACBSP accreditation)

BBA Business Core Student Learning Outcome #3: Utilize technology-supported, quantitative approaches to analyze business issues.

Evaluation Procedure for BBA Core Student Learning Outcome #3: This overarching, more general learning outcome will be assessed using some combination of the assignments and exams that you complete during class.

Course-specific Learning Outcomes

Student Learning Outcome #1: Conduct and interpret one-sample hypothesis tests involving means and proportions.

Student Learning Outcome #2: Conduct and interpret two-sample hypothesis tests involving differences in means and proportions.

Student Learning Outcome #3: Create and interpret two-sample interval estimations involving differences in means and proportions.

Student Learning Outcome #4: Implement simple linear regression and interpret results.

Student Learning Outcome #5: Implement multiple regression and interpret results.

Student Learning Outcome #6: Apply the usage of Minitab to each of the five previously mentioned learning outcomes. Be able to coherently interpret and explain Minitab results.

Evaluation Procedure for all Course-specific Learning Outcomes: Students will demonstrate each learning outcome through completion of topically relevant in-class exams and homework

assignments

Grading

Grades will be allocated using the following weights:

Exams: 80%

Homework Assignments: 20%

Note: Each item from a category will carry equal weight. Example: There are five assignments. Each assignment is worth 4% of your grade.

Grade Distribution

A	90 – 100
B	80 – 89
C	70 – 79
D	60 – 69
F	0 – 59

Exams

In this class you will take five (5) regular exams. These regular exams are not technically comprehensive, although previous material will often be necessary to understand material for a specific exam. You will also take a comprehensive final exam.

All exams will include a mixture of question types, including: multiple choice, short answer, statistical calculation, and statistical interpretation. The final exam is comprehensive.

Exams are proctored in-person, are paper-based, and are taken using only a pencil/pen and a non-phone calculator. Relevant formulas will be provided on the exam itself. No other materials are allowed to be used during exams. You will be given 75 minutes to finish each regular exam, and 120 minutes to finish the comprehensive final exam.

Proctor forms for exams will be posted by the end of the first week of class. You need to pick a proctor, fill this form out, and email it to me as soon as possible. The first exam occurs during block one (1). It is *your responsibility* to locate a person who will proctor your exams.

I will drop your lowest exam score. This can include an exam you may have missed due to the attendance and make-up policies listed below. The final exam can be dropped.

Each exam is worth the same percentage of your total grade. Since five of the six exams count towards your grade, this means that each grade relevant exam is worth 16% of your overall grade.

Exams always occur during the last week in a given block. You have freedom to schedule each exam at any time during the Monday through Friday of the final week in that block. I give a full

week to take each exam so that you have sufficient time to study, in addition to giving you an ample range of time such that you can find an appointment during that week that works for you and your proctor.

Important exam feedback note: You will *not* receive your exam back after taking it. You can, however, drop by my office during office hours (if in or near Madison), or email (or call) me with specific questions about the exam. Do not ask for extra credit after the fact. It will not be given.

Refer to the student verification and proctoring policy statement located near the end of this syllabus for more information.

Homework Assignments

You will complete five (5) homework assignments. These assignments will include a blend of “by-hand” problems, and Minitab applications.

There will be a corresponding dropbox folder in D2L for each homework assignment.

You will be expected to submit multiple files to the dropbox for each assignment, including some or all of the following: (a) the Minitab project file that shows the commands that the student used to have Minitab conduct the statistical analysis, as well as the Minitab output and (b) a document containing answers to the questions included in the assignment. This document should typically be done in MS Word. For statistical calculations, you can handwrite your work, and then take quality photos (or scan the handwritten work) and include them in the document.

Homework assignments will always be due before the final week of the given block (Sunday by 10:00 PM). I structure it this way such that you can receive feedback on your submitted assignment, as well as obtain the key for the assignment to aid in studying for the upcoming exam. Again, do not ask for extra credit after the fact. It will not be given.

Grading of Homework Assignments

Homework Assignments will be graded on a 2-point scale. You will receive either a 0, 1, or 2 on each homework assignment. I will also usually provide written feedback on each assignment in addition to the numerical grade. Keys will be provided for each assignment that you turn in. If you do not turn in an assignment, you will not receive a key. If you turn in an assignment late, you will not receive a key.

Interpretation of Homework Grades

0 points: The assignment either wasn't turned in or was turned in but shows zero (or, roughly zero) effort and understanding

1 point: The assignment is turned in, but effort and understanding appears relatively low. (example: not showing work on several parts of the assignment)

2 points: The assignment is turned in and satisfactory levels of effort and understanding are shown

Important HW Note: If you skip any question (even a portion of a question), your homework assignment score will default to a zero.

Another important HW Note: If you fail to submit a Minitab project file, or any other required file, your homework assignment score will default to a zero.

My advice is to be descriptive and complete in all that you do on homework assignments. The penalty is harsh for not doing so.

There will sometimes seem to be “gray areas” between the scores of 0, 1, and 2. Additionally, there is some interpretation that I must do in terms of effort, where I decide whether it is zero, low, or satisfactory. You may contact me with questions about your grade, but I’d only do so if you *truly believe* that you deserve a different score than what you received.

Communication and Feedback

Preferred Email Contact Method

I prefer for you to email me at my regular DSU email address: robert.girtz@dsu.edu

Email Response Time

I tend to respond to email well within 24 hours. Weekends can sometimes take longer.

Feedback on Assignments and Exams

I attempt to grade and return graded items within ten days of the due date. I post keys and feedback to your homework assignments in the dropbox folder where you submitted your assignment. Be sure to look there before contacting me.

Requirements for Course Interaction

Be responsible when posting messages to discussion board(s) and when sending emails. Do not post a message or use language that you would not feel comfortable using in person or which violates the student code of conduct. Be generally courteous.

Class Policies

Attendance Policy

I expect you to log in frequently. Completion of homework assignments and exams by their given due dates is mandatory.

Make-up Policy

In relation to the above attendance policy, if you fail to complete an exam or a homework assignment by the proposed due date, you will *not* be allowed to make these up. You will receive a score of zero on the uncompleted item. The same rule applies to late submissions. I do not accept late work. If you attempt to submit something late via the D2L dropbox, or email, I will not grade the item, and you will receive a zero.

ADA Statement

If you have a documented disability and/or anticipate needing accommodations (e.g., non-standard note taking, extended time on exams or a quiet space for taking exams) in this course, please contact the instructor. Also, please contact Dakota State University’s Disabilities Office

by calling 605-256-5121 or emailing Success.Center@dsu.edu as soon as possible. The DSU website contains additional information and the form to request accommodations found at <https://portal.sdbor.edu/dsu-student/student-resources/disability-services/Pages/default.aspx/>. (Students must log into the DSU portal to access this page.) You will need to provide documentation of your disability. The Disabilities Office must confirm the need for accommodations before officially authorizing them.

Academic Honesty Statement

Cheating and other forms of academic dishonesty run contrary to the purpose of higher education and will not be tolerated in this course. Please be advised that, when the instructor suspects plagiarism, the Internet and other standard means of plagiarism detection will be used to resolve the instructor's concerns. The South Dakota Board of Regents Student Academic Misconduct Policy can be found here: [SDBOR Policy 2.33](#).

All forms of academic dishonesty will result in a score of zero on the particular graded item (or items) in question.

Freedom in Learning Statement

Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. It has always been the policy of Dakota State University to allow students to appeal the decisions of faculty, administrative, and staff members and the decisions of institutional committees. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the chair of the department that offers the class to initiate a review of the evaluation.

Student Verification Statement and Proctoring Policy

Federal law requires that universities verify the identity of students when course materials and/or course assessment activities are conducted either partially or entirely online. A student's Desire2Learn (D2L) login and password are intended to provide the student with secure access to course materials and are also intended to help the university meet this federal mandate. Some DSU Faculty also require the use of a proctor for exams in distance-delivered (Internet) courses and this requirement provides a second level of student identity verification. Students are responsible for any proctoring fees, if applicable. Finally, an instructor who uses web conferencing technology may require students to use a webcam during exams, as another means of student identity verification through voice and visual recognition.

Student Support

DSU Knowledge Base

The DSU Knowledge Base contains links and resources to help students by providing information about the following topics: User Accounts & Passwords, Academic Tools & Resources, Software & Apps Support, WiFi & Network Access, Campus Emergency Alert System, Campus Printing, IT Security & Safe Computing, and the Support Desk (which is there

to help both on and off-campus students). The Knowledge Base can be accessed through the link below:

<https://support.dsu.edu/TDCClient/KB/>

D2L Support for Students

The D2L Support for Students site is designed to provide DSU students a D2L support resource center that contains user guides, tutorials, and tips for using the D2L learning environment. The D2L Support for Students site can be accessed through the link below:

<https://d2l.sdbor.edu/d2l/home/606414>

Writing Center

<https://dsu.edu/academics/academic-support-advising/writing-center.html>

Tutoring

<https://dsu.edu/academics/academic-support-advising/tutoring.html>

IT Help Desk

<https://support.dsu.edu/TDCClient/Home/>

Tentative Course Outline

Block	# Weeks	Dates	Chapter	Chapter Title	HW Due	Exam Due
1	3	1/13 to 1/31	9	Hypothesis Tests	1/26	1/31
2	3	2/3 to 2/21	10	Inferences About Means and Proportions with Two Populations	2/16	2/21
3	3	2/24 to 3/20	14(A)	Simple Linear Regression, part A	3/15	3/20
4	3	3/23 to 4/10	14(B)	Simple Linear Regression, part B	4/5	4/10
5	3	4/13 to 5/1	15	Multiple Regression	4/26	5/1
Final	1	5/4 to 5/8		Final Exam		5/8

Note: Block 3 contains spring break, making it appear as if it is four weeks long, when it is actually three official school weeks, just like all of the other blocks.

Disclaimer: I reserve the right to alter the course schedule, be it through addition, deletion, or rearrangement of course topics/chapters. If any of these situations occur, you will be given sufficient notice.