

Department of Economics, Statistics and Decision Sciences, Beacom School of Business

Instructor:	Thomas Tiahart, PhD	Email:	<click on my name in Resources → Classlist tool>
Course Number:	BADM520	Class Meetings:	Online

Course Schedule & Coverage of Topics

Please see the “Schedule” link in the “Getting Started” widget on the course homepage.

Course Description

Foundations of Calculus and Statistics for Business is an accelerated course in applications of mathematics and statistics to business and economics. Topic coverage include: 1) equations and their graphs; 2) matrices and their operations; 3) differential calculus, in particular, first and second derivatives of single and multi-variable functions; 4) descriptive statistics; 5) probability; 6) distributions; 7) hypothesis testing; 8) the modeling of business and economic problems. Computer applications are included.

Course Section Description

We will investigate the use of statistics and calculus by organizations to exploit business opportunities. Our emphasis will be on the practical application of mathematical techniques include some computer-based work using Microsoft Excel.

Textbooks



IMPORTANT: The **two** textbooks are the **8th Edition, © 2004 of Mathematics An Applied Approach**, by Michael Sullivan and Abe Mizrahi, ISBN-13: 978-0471327844, and the **6th Edition, © 2009-2010 of Business Statistics for Contemporary Decision Making**, ISBN-13: 978-0470409015 Used copies should be available.

Course Specific Objectives

Students who successfully complete Foundations of Calculus & Statistics for Business will be able to:

- Describe the applications of calculus and statistics used in business decision-making.
- Formulate, solve, and interpret practical calculus and statistics problems in a spreadsheet environment.
- Explain how calculus and statistics is used to solve business problems.

Online Course Objective

A primary objective of online education is to permit students to complete all requirements of a course or degree program using the power of the Internet to make the course location independent. Students

are able to access all materials necessary to complete the course requirements using an Internet connected computer. No campus-specific activities are required or necessary to complete this course.

Beacom School of Business Mission Statement - We are a community of scholars and practitioners committed to superior undergraduate and graduate business programs accredited by AACSB International. We emphasize excellence in teaching, promote intellectual exchange and development, and advocate continuous learning reflecting a dynamic global environment. Our services deliver value to our students, the university, business disciplines, and society.

MBA Mission - The primary mission of the School of Business is educating students. The School strives for its graduates to be open-minded and principled. Graduates should exhibit verbal and quantitative literacy and have a high level of skill in the chosen area of concentration. The School also strives for its graduates to understand the advantages and limitations of a free-market economy.

Course Assessments

ASSESSMENT	POINTS
Midterm Exam	200
Final Exam	200
Weekly homework	50
Professional and Participation	50
TOTAL	500

Note: the actual number of points in the course may vary somewhat from this.

Grading

Your grade is calculated using straight percentages:

Letter Grade	Percentage	Summer Points (approximate)
A	90-100%	450 -500
B	80-89%	400 -449
C	70-79%	350 -399
D	60-69%	300 -349
F	0-59%	Less than 300

Exams

Exams must be completed as proctored exams and will be a combination of applied concepts and problems in a multiple choice format. Makeup exams will be given only on an emergency basis. To take proctored exams, you will go to your proctor's office, or one of the SDBOR testing centers (Vermillion, Sioux Falls, Brookings, Pierre, and Rapid City). You will not be permitted to use any materials other than a standard scientific calculator for these examinations. Exams must be taken in the presence of an approved proctor. All students not taking exams at a SDBOR testing center must submit a proctor form. The proctor form can be found at

<http://www.usd.edu/~media/files/usd-online/proctor-form.ashx?la=en>

It is best to use the same proctor for both exams. Fill out the form and send it to Continuing Education at the address provided.

The proctor form must be submitted by Wednesday, January 17, 2018 (the same day as the withdrawal deadline).

If the proctor form is not returned by that time, the student may not be able to take the required exams. Students must submit a separate proctor form for each class they are taking that requires proctored exams. Do not submit one form for all your classes. New forms must be submitted each semester. In order to set up your exams, please refer to the policies outlined in the CE Online Orientation at

<http://www.usd.edu/continuing-and-distance-education/upload/Online-Orientation-Guide.pdf>

You must notify the instructor prior to an examination if you cannot take the exam during the scheduled time. Make-up exams will be given on a documented emergency basis only. Because there are only two exams and the test weeks have been provided, you should make every effort to take the exam during the week it is scheduled. Absent emergencies or similar circumstances the failure to give prior notice of your absence will result in a zero for that exam.

Webcam Exams

Note that in some circumstances students are unable to secure a proctor for the exam. In those cases a webcam exam may be used, but for that exam **10%** of the total points will be **subtracted from the exam's point total**. In other words, a perfect score that would normally be 100% of the points would be worth 90% of the points.

Homework

Homework will be graded based on completion, not correctness. Odd-numbered exercises will be assigned, so you will always have access to the correct answer. Submitting answers without showing your work in Excel will not earn any homework points. You must demonstrate your understanding by completing the Excel homework template files and uploading them.

Feedback turnaround times

Multiple choice assessments are graded immediately. Homework assignments will be returned with two weeks. The exception will be homework due in the week before the midterm exam, which will be returned in three weeks. Material covered during the week before the midterm will appear on the final exam. Note that the homework answers will be provided, but only after all homework has been submitted or after no more homework will be accepted.

Late homework policy

Late homework will be accepted for up to four days past the due date, but the late penalty will be as follows:

Days Late	Late Penalty Percentage
1	20%
2	40%

3	60%
4	80%

Professionalism and Participation

All of you are either professionals or are training to become professionals. In either case, we are modeling professional behavior in our course. Professionalism is based on your interaction with your instructor, your classmates, your proctors and the University of South Dakota ITS, CTL and CDE personnel. Any unprofessional behavior will result in the loss of professionalism and participation points. In unusual cases the deductions may be greater than the professionalism and participation point allocation.

Communicating With Your Instructor

When you send email your instructor shall usually respond within 24 hours during the week, and within 48 hours over the weekend and holidays.

The way you format email messages is important. Your education should prepare you to succeed in your career, and a significant part of your education should be practicing how to communicate clearly and professionally. Write grammatically correct sentences in accordance with Standard English usage. Format your emails as if you were addressing your supervisor in a professional environment. Email messages should include a professional greeting (e.g., "Hello Professor Tiahrt," or "Hi Dr. Tiahrt,") and a proper closing (e.g., "Best regards, Chris Smith" or "Thanks, Chris Smith"). Your instructor will respond to messages that are not professional and respectful with a recommendation to reformat your message before you receive a respond to your request (e.g., starting your message with "Hey" or "Dude" is unacceptable, as is ending it with "Later," or acronyms, e.g. "TTFN,"). This is a requirement because you need to practice good habits to be a successful professional. An awareness of the difference between how you communicate with friends versus how you communicate with superiors/professors/supervisors/etc. is an important byproduct of your education. Failure to follow these guidelines will result in a reduction of your professionalism and participation points.

Discussion Boards

There will be discussion boards each week so that you may pose questions to your classmates or your instructor in an effort to more fully understand the material or to address questions or difficulties. If you have a question regarding a lecture or problem, post it to the discussion board. If you have an answer to someone's question, please provide that as well. Note that you should not provide your homework, in part or in full, as an answer. That deprives the questioner of working through the problem. I will check the discussion board several times each week to monitor postings and provide occasional assistance. There are many opportunities to learn from your classmates, and the discussion board should be a forum for learning from each other. Therefore, while your instructor will monitor the discussion, each of you should take an active part in posting.

Your participation by asking helpful questions, or by answering them in order to help other students,

increases your points. You may also provide relevant work experiences or links to material that sheds light on our subject matter. Note that in no case are you to share your own completed homework. Students must complete their own homework.

The discussion board comprises the place where you will have the opportunity to earn participation points. Points accrue as long as each post is substantive questions or substantive responses to significant questions. A substantive response is more than simply writing, “I agree,” or “I disagree,” or “that is right,” or “no, that is wrong;” rather, it will provide arguments, explanations and/or demonstrations to support the student’s assertions. Also, the introductory post does count toward your total, so be sure to introduce yourself in the discussion board.

You earn professionalism and participation points according to the following schedule:

EVENT	POINTS
Beginning Professionalism and Participation points (requires recognizable face picture)	5
Ten posts (initiating threads and posting replies to threads both count)	15
Twenty posts (initiating threads and posting replies to threads both count)	15
80% of posts read (ending the last day before the week before finals week)	10
95% of posts read (ending the last day before the week before finals week)	5
Unprofessional behavior, per incident	-1 to -50
Maximum Professionalism and Participation Points:	50

Note that the tally ends the last day before finals week. To earn the maximum points you must meet the twenty-post threshold and read 95% of the discussion board traffic. If you have, e.g., twenty posts in the first half of the course and zero in the second, it still counts as twenty posts. If you post nine times you need one more to reach the threshold value to earn the points for ten. Eleven posts earns the same point total as ten. Nineteen earns the same point total as ten. Twenty or more earns all the thread and reply points.

Discussion Board Participation Constraints:

1. No posts or post reads will be counted once the week before finals week begins (The penultimate week’s posts do not count.) That is, weeks 15 and 16 do not count toward the total.
2. No more than 20% of your posts can take place in the antepenultimate week (week 14).
3. Posts must be substantive. See the recording on the discussion board for details.

I recommend that you track your participation on a weekly basis. Otherwise you will find that there is no easy to discover how many threads you have created, replied to or read.

When posting in the discussions, **each student needs to abide by the “Netiquette” section in the CDE Online Student Orientation**, which can be found in the “Getting Started” widget on the course homepage. Failure to comply is at a minimum unprofessional. Additionally, each student will need to post substantive questions or substantive responses to significant questions. A substantive response is

more than simply writing, “I agree,” or “I disagree,” or “that is right,” or “no, that is wrong;” rather, it will provide arguments, explanations and/or demonstrations to support the student’s assertions.

Objective/Assessment Matrix

SPECIFIC OBJECTIVES	PURPOSE OF OBJECTIVE	ASSESSMENT
Describe the applications of calculus and statistics used in business decision-making	Content master, core learning	1. Demonstrated through homework submissions. 2. Demonstrated through application exam questions.
Formulate, solve, and interpret practical calculus and statistics problems in a spreadsheet environment.	Content mastery, critical thinking, core learning	1. Demonstrated through homework submissions. 2. Demonstrated through application exam questions.
Explain how calculus and statistics is used to solve business problems.	Critical thinking	1. Demonstrated through homework submissions. 2. Demonstrated through conceptual/terminology oriented exam questions.

Instructional Method

This course will be presented online via Desire2Learn (<http://d2l.sdbor.edu>), which you will use to:

- Communicate with your classmates and the instructor via discussions and course mail
- View lectures, lecture notes, and lecture recordings
- Access all required course materials
- Access your course progress and grades

Once you have successfully logged into D2L, you will see a list of course links including one titled “BADM-520-U820T-2018SP Foundations Calc/Stats.” Click on that link and you will be transferred to the home page for the course. Students will have access to many tools to assist in learning the material during the course including recorded lectures, lecture notes, homework problems and answers, discussion board interaction, and virtual office hours.

Lectures will be posted every **WEDNESDAY NIGHT AT 8:00 PM CENTRAL TIME.**



IMPORTANT: Because this is an online, asynchronous course, there is no attendance requirement. However, students are required to review the lecture recording.

Also, viewing the lecture slides will not be sufficient, as they only serve as an outline for the lecture.

All of the lecture slides and subsequent recordings of the lectures, will be made available under the **Content** area of the course, under the Activities section of the current week. Lecture recordings will generally be posted within a day or two after the recording has taken place.



TIP: If you are viewing the lecture recording, it is **NOT** necessary to watch the entire recording all at once, nor do you need to watch it from start to finish. You can watch one part of the lecture, and then come back at a later time to watch the rest, or jump to different topics.

Offices hours – I will have a Collaborate session available each Wednesday evening at 7 PM (excepting test weeks) where we can discuss problems. You will find the link for the Collaborate session on the Getting Started widget on the course home page.

Attendance Policy

The Beacom School of Business attendance policy will be enforced as follows:

1. Attendance (participation) is expected each week. Failure to participate in a meaningful way during the course of any week constitutes a “virtual absence” unless otherwise approved by the instructor.
2. There is no penalty for the first virtual absence.
3. Any student with more than two virtual absences may be dropped from the course. Students will be notified in writing before being dropped.

Class Format

The purpose of the problems and models are to familiarize you with problem solving techniques using Microsoft Excel and the associated software. We will spend some time through the lectures dealing with problem examples/solutions and assigned readings. It is imperative that you work through the examples and problems as we proceed through the material as each class will build upon the knowledge and skills developed in the prior class. The presentation of problems and concepts in the provided materials is “cookbook” oriented, but covers a lot of ground quickly. Most students enroll in this class either having little experience in the more complex uses of Microsoft Excel and/or the concepts of statistical modeling. Some of you will have to work a little harder at the beginning to overcome any areas of limited exposure.

Student Expectations

Students are expected to read, understand and abide by all policies and procedures outlined in this syllabus, as well as those in the CDE Online Orientation, which can be accessed from the “Getting Started” widget on the course homepage. The latter contains important information about the various support services available at USD.

As this is an online course, and meant to be an asynchronous experience, we will not be meeting face-to-face, so the SDBOR engagement requirement will be reproduced by the following activities, all of which will be due by the end of the week: posting in the weekly discussions; viewing the lecture; completing the weekly homework assignments; other assessments at the discretion of the instructor. That said, in general, a typical week in this course will be sequenced as follows:

DAY	TASK
Monday	Start of the week; new materials and weekly assessments available Open for independent work and discussions. If it is an exam week, then you may take the exam beginning on Monday.

Tuesday	Open for independent work and discussions
Wednesday	Lecture posted @ 8:00 PM CT Open for independent work and discussions
Thursday	Open for independent work and discussions
Friday	Open for independent work and discussions
Saturday	Open for independent work and discussions
Sunday	All weekly homework is due by 11:59 PM CT on Sunday night.

This sequence will be followed for all topics and weeks, which are detailed in the Class Schedule, which can be accessed via the “Getting Started” widget on the course homepage. The instructor will also provide regular updates during the week, so students should log into D2L to check for news and email at **least three times per week**, if not more frequently.



TIP: You can, optionally, forward your D2L course mail to your preferred email account (e.g. Gmail, Yahoo, Hotmail, etc.). See the guide in the course **FAQ** for instructions and an important note on the limitation of this feature.

In terms of time commitment, the South Dakota Board of Regents (SDBOR) defines a credit hour as constituting one hour of classroom or direct faculty instruction, and two hours of out-of-class, student work. However, as this is a quantitatively oriented, three-credit-hour graduate course, students should expect to dedicate **nine (9) to fifteen (15) hours per week** to complete course activities.

Important Drop Dates

The last day to drop this course with a full refund and without the course being recorded on your transcript is Wednesday, January 17, 2018. The last day to drop this course and receive a grade of "W" on your transcript is Monday, April 2, 2018.

Student Conduct/Academic Integrity

No credit can be given for a dishonest assignment. A student found to have engaged in any form of academic dishonesty may, at the discretion of the instructor, be:

- a) Given a zero for that assignment.
- b) Allowed to rewrite and resubmit the assignment for credit.
- c) Assigned a reduced grade for the course.
- d) Dropped from the course.
- e) Failed in the course

[USD Academic Misconduct Link](#)

Student Code of Ethics

Students enrolled at the Beacom School of Business are expected to maintain the highest standards of integrity and ethical principles and to adhere to the Student Code of Ethics developed and approved by Beacom School of Business students. This Code provides a frame of reference for the behavior of Beacom School of Business students in their personal, academic, and professional activities.

Instructor Expectations

The instructor will strive to provide feedback and, unless otherwise stated, will respond to inquiries within twenty-four (24) hours on weekdays, or within forty-eight hours (48) on the weekends and holidays. The instructor will also return feedback and suggestions, using standard grading criteria.

Finally, the instructor will also abide by all policies set forth in this syllabus and those by the CDE Online Orientation, The University of South Dakota, and the SDBOR.

Technology Requirements

The University of South Dakota has established minimum technology requirements for participation in online courses. These are outlined under the “Technology Support and Requirements” section in the CDE Online Orientation document in the “Getting Started” widget on the course homepage.

Student Resources:

The University of South Dakota provides a number of useful services to students:

- **CDE Online Orientation Guide (see link in the “Getting Started” widget on the course homepage):**
This contains important information related to the services provided by the University of South Dakota as well as the University policies. In it, you will find such information as:
 - Academic support services such as the library, writing center, proctor and testing information, book purchasing, etc.
 - Student support services such as advising and enrollment information, financial aid, student life, and counseling, etc.
 - Technology support services like technology requirements, ITS Help Desk contact information, discounts on computers and software, etc.

- **USD Portal (<http://my.usd.edu/>):**
The USD Portal is your one-stop place for a majority of services offered to any student taking a USD course—like this course. You can access the following services from the “Academics” tab in the portal:
 - WebAdvisor
 - I.D. Weeks Library

- **The USD Writing Center (<http://www.usd.edu/academics/academic-commons/writing-center.cfm>):**
The USD Writing Center was established to provide writing assistance to students in order to help them become better writers. It is available on campus during regular business hours and online in the evenings. Please visit the URL above for more information.

Plagiarism Policy:

Plagiarism is defined as using the words and/or ideas of another and representing them to be your own, without proper credit to the author or source. It also happens when you ‘recycle’ or ‘repurpose’ content you have written for another purpose but use to fulfill a course requirement. Whether intentional or unintentional, plagiarism will result, at a minimum, in a grade of zero for that assignment.

Because it is impossible to evaluate a plagiarized homework, no credit can be given. At the discretion of the instructor, a student may be subject to any, or a combination, of the following:

- given a zero for the assignment
- assigned a reduced grade for the course
- reported to the program in which the student is majoring and that department may take additional action
- dropped from the course
- failed in the course

Freedom in Learning:

Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinion or conduct unrelated to academic standards should contact the Dean of the Beacom School of Business to initiate a review of the evaluation.

Disability Services:

Any student who feels he/she may need academic accommodations or access accommodations based on the impact of any disability should contact and register with the Office of Disability Services during the first week of class. Please contact both your instructor and the Director of the Office of Disability Services

Director of the Office of Disability Services:

Ernetta L. Fox, Director
Disability Services
Room 119 Service Center
(605) 677-6389
[http://www.usd.edu/ds/
dservices@usd.edu](http://www.usd.edu/ds/dservices@usd.edu)

Diversity

The University of South Dakota strives to foster a globally inclusive learning environment where opportunities are provided for diversity to be recognized and respected.