

MATH 1100-070
BUSINESS CALCULUS
SPRING 2020 SYLLABUS

INSTRUCTOR: John Nordstrom, Associate Instructor, Continuing Education

TIME & PLACE: MW 5:30 PM-07:00 PM – Room 107 [Sandy Campus](#)
10011 Centennial Parkway, Suite 100, Sandy, UT 84070, 801-587-2520

TEXT: *Mathematical Applications for the Management, Life and Social Sciences, 12th Edition*, by Harshbarger & Reynolds.

ISBN 13: 978-1-337-62534-0

Because we want to save money for students purchasing math textbooks, we have switched to the Inclusive Access Program.

- An email will go out to all Math1100 students prior to the first day of class with information on what Inclusive Access is and instructions on how to access their digital course materials. Essentially, students will be billed for the book along with their tuition, and they won't need to do anything else to get access to the online book with this option.
- Students have the option to OPT OUT, but the default is to opt in. If a student opts out during the first two weeks of class, they will not be charged for the book. If they opt out, the student will be responsible to purchase/rent/borrow the book elsewhere.
- Through the Inclusive Access Program, students will receive a digital copy of the book. The cost for Math1100 access is around \$40.00 (this cost has already been billed along with your tuition).
- If a student wishes to order a hard copy of the book, they can talk to Shane Girton (U of U Bookstore) and a copy of the book can be special ordered.
- Lastly, we will, of course, have a couple copies of the book at the Reserve Desk in the Marriott Library that you can check out for three hours at a time. This is a free option for students.

OFFICE HOURS: Being adjunct faculty, I don't have a University office; not having an office, I don't have office hours. I generally try to be available both before and after class to answer any questions you have. I can also be reached by any of following methods (email is preferred):

Email: nordstro@math.utah.edu (anytime) *Note the missing 'm' in my name!*

Website: Canvas

PREREQUISITES: At least a C grade in Math 1090 (Business Algebra) OR Math 1050 (College Algebra) OR in Math 1080 (Precalculus) OR Math 1210 (Calculus 1) OR an Accuplacer score of 80 on the College Level Math (CLM) test OR at least an ACT Math score of 28 OR at least SAT Math score of 630.

COURSE DESCRIPTION: Differentiation, maximization and minimization of functions, marginal analysis and the optimization of constrained functions, integration and applications. Not

for students who have completed more than one semester of calculus.

**EXPECTED
LEARNING
OUTCOMES:**

Upon successful completion of this course, a student should be able to:

- Have a basic conceptual understanding of limits.
- Know how to differentiate and integrate polynomial, rational, logarithmic, and exponential functions.
- Use derivatives to gather information about the shape of the curve and use that information to graph the curve $y = f(x)$, for polynomial, logarithmic, exponential and simple rational functions.
- Understand how to use differentiation to optimize functions for business applications, such as maximizing profit examples.
- Use integration to find area under curves and for business examples such as average value.
- Take partial derivatives of basic functions of two variables.

**COURSE
STRUCTURE:**

The class schedule lists this class as being a lecture course, and that is true as far as it goes. But like any mathematics course, this course will require your active participation to be effective. You will have to do much of the heavy lifting yourself, both in and out of class. You are expected to do the assigned homework, not for any points you might earn, but because:

You learn math by doing math.

We will spend the first part of every class going over questions from the homework; if you haven't done the homework you won't know what questions to ask. I will expect you to be active participants in the class, working problems and asking questions.

Please don't be afraid to ask questions, either in or out of class. If there is something you do not understand, you can be assured there are other students who are also lost and will appreciate your question.

**APPROXIMATE
GRADING:**

Daily Questions:	5%
Homework:	10%
Weekly Quizzes:	10%
Three Midterms:	45%
Comprehensive Final:	30%

Please note that this is the *approximate* weight given to each of the components you will be graded on. In particular, I typically give more weight to your final if you do particularly well on it. I will weigh the best of your three midterms at 20% of your grade, your next best at 15%, and your worst at 10%.

My grading scale is the standard one as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
>93%	90-93%	87-90%	83-87%	80-83%	77-80%	73-77%	70-73%	67-70%	63-67%	60-63%	<60%

I find that I rarely need to curve grades. If I find I need to I will simply shift the scale by a point or two. Note that you must receive at least a 50% or higher on the final exam to receive a grade of 'C' or better for the course.

Note that unusual circumstances may dictate that we deviate from either the planned number of tests, or the grading and scoring guidelines as described. Any changes will be announced and discussed in class.

- TESTING:** There will be three one-hour midterms and a comprehensive two-hour final exam. These tests will be taken in class on the days listed in the Exam Schedule at the end of this syllabus. As mentioned above, the midterms will be weighted so that your best midterm counts for more of your grade than your worst. Don't count on this weighting to dramatically change your grade; at most it can improve a student's grade by 1/3 of a letter grade, and often not even that. You really need to aim to do your best on all of the midterms.
- WEEKLY QUIZZES:** There will be a total of 10 – 11 more-or-less weekly online in-class quizzes. We will not have a quiz on test weeks. The weekly quiz will cover the material presented that week in class. **Your lowest two quiz scores will be dropped.**
- HOMEWORK:** I will be assigning a lot of homework, but only completely grading a small portion of it. I will collect homework on Monday of each week. This will include all of the homework assigned from both days of the previous week. The homework assigned from each day will be worth 10 points. Your homework score is divided into two parts:
- You will earn up to 5 points for attempting every problem, including showing work. I will not be grading for correctness for this half of the homework grade, so it is your responsibility to understand the problems and their solutions.
 - The other 5 points will be given for complete and correct solutions for a few problems from each homework set. You will not know ahead of time which problems will be graded for correctness.
- The reasoning behind grading the homework in this manner is to motivate you to do the homework. There is absolutely no way that you can master this material without doing the homework. I cannot emphasize it enough:
- You learn math by doing math.*
- I will accept up to 10 late homework *days*, up to two weeks late, throughout the semester for full credit (remember, each time you are turning in homework on Monday, you are turning homework from two days).
- DAILY QUESTIONS:** If the portion of your grade from homework is designed to motivate you to do the homework, the daily questions are designed to motivate you to attend class. These will be questions will be given throughout the lecture to encourage you to pay attention to the material being presented. There is no fixed amount of problems that will be given on any particular day. There will be no chance for making up missed problems.
- CALCULATORS:** You may find it helpful to have a graphing calculator for your own personal use. However, if I allow calculators on exams or quizzes, I will only allow scientific calculators (no graphing or programmable calculators will be allowed ever). Most of the time, you will not have use of a calculator on exams and quizzes. This will be discussed more in class with each quiz and test.
- ONLINE GRADES:** I will put your scores online in Canvas. I do my best to update the grades on a regular basis and keep everything accurate. However, I would advise you to check your grades often to make sure there were no data entry mistakes. I'm always happy to correct any mistakes I've made. You just need to let me know. Please realize that while Canvas is pretty good at giving you an average of how

you are doing, it always just presenting you with a snapshot of your scores up to that point in time. Each exam, especially the final, can cause major shifts in how you are doing.

If you are new to Canvas, please let me know and I can assist you in logging onto the system.

GETTING HELP:

You may find that you need some extra help beyond what the class can provide. The math department has a free tutoring center located on campus in the T. Benny Rushing Mathematics Center (www.math.utah.edu/undergrad/mathcenter.php). For more personalized attention, the ASUU Tutoring Center (www.sa.utah.edu/tutoring) provides both individual and group tutoring at reasonable rates.

RESPONSIBILITIES:

All students are expected to maintain professional behavior in the classroom setting, according to the [Student Code](#), spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.

All students are expected to maintain adult and professional behavior in the classroom. Please respect your classmates by not engaging in distracting behavior, such as:

- excessive talking with your friends (even about math);
- using your phone for anything (voice, text, camera, games...);
- playing with other toys (electronic or otherwise);
- eating and drinking (particularly noisy food);
- talking with your friends (there is a reason this bullet is repeated).

ACCOMMODATION:

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the [Center for Disability Services](#), 162 Union Building, 581-5020 (V/TDD). CDS will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDA.

If you have any special needs or requests, please let me know. There is a good chance that we find a solution that meets your needs. Please let me know, discreetly, if you have any sort of phobia, anxiety disorder, TBI, PTSD, C-PTSD, or other challenge that would cause psychological harm to be called on in class. While I want students to feel mentally stretched during class, especially while working on problems as a large group, I definitely don't want to cause any human being harm. So, please tell me if that is the case for you and I will confidentially accommodate your request.

WELLNESS STATEMENT:

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

**CRISIS SERVICES
CENTER:**

This center offers services Mo-Fr 8 am – 5 pm. If you would like to talk to one of the staff members, please call 801-581-6826 or walk into the Center at 426 Student Services Building (SSB). For more urgent situations and after hours, please go to the University Neuropsychiatric Institute (UNI), 501 Chipeta Way, or to the Emergency Department at the University Hospital.

UNI Crisis Line: 801-587-3000 offers crisis response 24/7, including: crisis support over the phone, a mobile outreach option (MCOT) that will respond to persons in their home, and the Receiving Center where individuals from Salt Lake County can access a safe and supportive environment to help individuals work through their crisis situation. Individuals may spend up to 23 hours at the Receiving Center, at no cost.

**ADDRESSING
SEXUAL
MISCONDUCT:**

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

**SAFETY
STATEMENT:**

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

**STUDENT NAMES
AND PERSONAL
PRONOUNS:**

Class rosters are provided to the instructor with the student's legal name as well as Preferred first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your U-ID card, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am-5pm, and 8am-6pm on Tuesdays.

**VETERANS
CENTER:**

If you are a student veteran, the U of Utah has a Veterans Support Center located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let me know if you need any additional support in this class for any reason.

COURSE OUTLINE: The following is a brief outline of the topics that will be covered in this class.

Chapter 9 (9.1 – 9.9) Derivatives

Midterm 1

Chapter 10 (10.1 – 10.5) Application of Derivatives

Chapter 11 (11.1 – 11.5) Derivatives Continued

Midterm 2

Chapter 12 (12.1 – 12.4) Indefinite Integrals

Chapter 13 (13.1 – 13.4, 13.7) Definite Integrals

Midterm 3

Chapter 14 (14.1 – 14.2) Functions of Two or More Variables

Final

If time permits, we might also cover section 13.6.

IMPORTANT DATES:

Be sure to consult the official [Academic Calendar](#) for other important dates and to make sure there are no changes from these dates.

First class Monday, January 6

Last day to add without a permission code..... Friday, January 10

Last day to add/drop or elect CR/NC Friday, January 17

Martin Luther King Jr. Day holiday Monday, January 20

Presidents' Day holiday Monday, February 17

Last day to withdraw Friday, March 6

Spring Break March 8 – 15

Last regular class Wednesday, April 22

EXAM SCHEDULE:

Please note that the dates for the midterms is somewhat tentative. There is a good chance that these dates may change slightly.

Midterm 1 Wednesday, February 5

Midterm 2 Wednesday, March 4

Midterm 3 Wednesday, April 8

**Final (comprehensive) Monday, April 27, 2019
(from 6:00 – 8:00 PM)**