MATH 1100-002 Business Calculus, Spring 2020

Class Meetings: TH at 9:10am–10:30am in JTB 130
Instructor: Andy Kassen
Email: kassen@math.utah.edu
Office Hours: TH 10:30am-11:30am in LCB 326, or by appointment
Text: *Mathematical Applications for the Management, Life and Social Sciences*, 12th Edition, by Harshbarger & Reynolds, ISBN: 978-1-337-62534-0. Unless you opted out, you should have digital access to this book. For info, see `http://www.math.utah.edu/schedule/bookInfo`.

Course Information: MATH 1100, Business Calculus, is a 3-credit semester course.

Prerequisite Information: 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.

Canvas: Canvas will be used for posting course announcements, homework assignments, grades, files and any relevant supplementary material. You are also welcome to make use of the Canvas discussion board to discuss course problems or topics. You can access the Canvas page through CIS or by logging in at `https://utah.instructure.com`. Students should check the Canvas page regularly for course information and resources. Email notifications and correspondence will be sent to the student's UMail address ([u-number]@utah.edu); this email account must be checked regularly.

Grading: The following are the grade components and the percentage each contributes to a student's final grade:

- **Homework Assignments (15%)**- Roughly two textbook sections are due most Thursdays by the end of class (including days of exams, but not the week following). If you click on a homework assignment in the Assignments tab in Canvas, you will see the list of assigned problems. Three of the problems will be selected for grading, each graded out of 5 points. There will also be 5 points given for completion. The lowest homework score will be dropped. Homework will only be accepted in class, no electronic copies. No late homework will be accepted, unless accompanied by a doctor's note or other verification of extenuating circumstance.

- **Weekly quizzes (20%)**- There will be a weekly in-class quiz every Thursday (except exam days). The quiz will cover material from the previous week (usually in line with the homework sections). The quizzes will be group quizzes and I will assign the groups. Because they are group work, there can be no make-ups. Only 10 quiz scores will count towards your grade.

- **Midterm Exams (40%)**- Two 80-minute midterm exams will be given on select Thursdays. A practice exam will be posted a week prior to the midterm that will cover the same material. Dates of the midterm exams are fixed and will be on February 13 and April 2.

- **Final Exam (25%)**- A two-hour comprehensive exam will be given. As with the midterms, a practice final will be posted a week prior. Our final exam is scheduled for Tuesday Apr. 28th from 8:00am–10:00am in JTB 130.

Students with university excused absences (band, debate, student government, intercollegiate athletics) should make alternate arrangements with me as soon as possible if the absence interferes with any course components.

Grading Scale: Final course letter grades will be determined as follows: A: 93–100, A−: 90–93, B+: 87–90, B: 83–87, B−: 80–83, C+: 77-80, C: 73–77, C−: 70–73, D+: 67–70, D: 63–67, D−: 60–63, E: below 60. I retain the right to modify this grading scheme during the course of the semester; students will, of course, be well notified of any adjustments.

Additional Resources

- **Tutoring Center & Computer Lab**- There is free tutoring in the T. Benny Rushing Mathematics Student Center (room 155, the lower level between JWB and LCB), as well as a computer lab. For more information see `http://www.math.utah.edu/undergrad/mathcenter.php`

- **Private Tutoring**- ASUU Tutoring Center, 330 SSB. There is also a list of tutors at the math department office JWB 233.

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

1. Have a basic conceptual understanding of limits.

2. Know how to differentiate and integrate polynomial, rational, logarithmic, and exponential functions.

3. 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.

4. Understand how to use differentiation to optimize functions for business applications, such as maximizing profit examples.

5. Use integration to find area under curves and for business examples such as average value.

6. Take partial derivatives of basic functions of two variables.

Student Responsibilities: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students 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, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, and I will do so, beginning with verbal warnings and progressing to dismissal from and class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. `http://regulations.utah.edu/academics/6-400.php`

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.

ADA Statement: 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 & Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

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, veterans 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).

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 UIDcard, 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.

Wellness Statement: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a students 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.