

Casper College Course Syllabus

MATH 2350-01 Business Calculus I

Semester / Year: Fall 2015

Lecture Hours: 4 **Lab Hours:** 0 **Credit Hours:** 4

Class Time: 9:00-9:50 am **Days:** M-Th **Room:** PS 202

Instructor's Name: Debra Swedberg **e-mail:** swedberg@caspercollege.edu

Instructor's Office #: PS 343 **Phone:** (307) 268-2251 w/voice mail

Office Hours: 9:00-9:50 am F, 10:00-10:50 am, M-F; 11:00-11:50 F in MLC (PS 104), 12-12:50 pm M &W; & other times by appt. **Contact Information:** IN PERSON IN MY OFFICE: PS 343; by phone (307-268-2251); or by e-mail.

Course Description: The study of single variable calculus emphasizing applications in business, social and behavioral and life sciences.

Extended Course Description: This class is designed to be an introduction to the techniques and applications of calculus and data analysis. This is most definitely an applied calculus course with our focus on the applications of this subject area and not the theoretical development (take 2200 if this is your main interest). Calculus is often called the mathematics of change. You will, hopefully, understand the inner workings of how things change and build systematic ways to use this understand in everyday situations. The emphasis of this course will be on understanding concepts instead of developing algebraic or manipulation skills. This course will use "real life" problems and not textbook mathematics and will emphasize the use of technology to free you from tedious tasks to help you think and reason.

Statement of Prerequisites: A grade of "C" or better in MATH 1400, an ACT Math score of 26 or better or an appropriate or COMPASS Placement Exam Domain of College Algebra (65-100) or Trigonometry (0-60) score within the past year.

Goal: This class is designed to help you be successful in your Junior and Senior level business classes; to help you become astute from a global perspective with regards to data; to be more of a critical thinker, evaluating projections and validity of a chosen model and to communicate mathematically, through data, graphs, tables and words.

Outcomes: Specifically, we will cover chapters 1-4 in the textbook. We will begin with a study of math modeling and functions, and then have our discussion of rates of change which will lead to the concept of the derivative and end with applications of these derivatives. As was indicated in the discussion of general objectives above, this is an applied course and all of our work will be in the context of applied problems. We will learn how to use a modern analysis tool (a graphing calculator – the TI-84 is what we strongly recommend in this course and any statistics course at Casper College, but there are other calculators that work) as well as Excel, to help analyze these situations.

Outcomes for Casper College Graduates: (those highlighted below are those outcomes we will develop in this class)

1. **Demonstrate effective oral and written communication**
2. Use the scientific method
3. **Solve problems using critical thinking and creativity**
4. Demonstrate knowledge of diverse cultures and historical perspectives
5. Appreciate aesthetic and creative activities
6. Use appropriate technology and information to conduct research
7. Describe the value of personal, civic, and social responsibilities
8. **Use quantitative analytical skills to evaluate and process numerical data**

Methodology: This is primarily a lecture class. The class topics are listed week by week on the last page of this document. I will post your online assignments in the Web Assign site. It is a web-based program that allows you to work on homework with as much practice needed to be successful. I hope that you ask questions that come up in your learning process.

Evaluation Criteria: Your grade in this course will be determined by scores on tests, homework and a possible final project. Stay tuned for this last assignment.

- **Homework assignments** will be assigned for every section via Web Assign (an online class management system specifically created for this textbook). Please do these problems as your or as many of them as you feel are necessary to understand the information in that section. Please be sure to ask any and all questions that you have from these. You will also have hand-written assignments that will have due dates announced in class.
- **Quizzes:** We will have periodic quizzes that will be every couple of sections, closed book, just to check how you are doing.
- **Exams:** There will be four tests in this course. Test dates are given on the schedule. We will plan to spend a day to review before each exam. You will be allowed to use your calculator on tests. There will be a comprehensive final exam scheduled during the schedule per the final week schedule.
- **Projects:** We will have two projects during the semester that will be better explained during the semester.

YOUR GRADE IN THIS COURSE WILL BE DETERMINED AS FOLLOWS:

I will take your homework and quiz scores and compute an average for each. This percentage will equal one test score or 100 points.

HW Avg	100 points
Quiz Avg	100 points
Test #1	100 points
Test #2	100 points
Test #3	100 points
Test #4	100 points
Final Ex	100 points
Projects	<u>50 points each (100 points total)</u>

For a total of 900 points

You are guaranteed a traditional college grading scale of:

90%+ A; 80-89% B; 70-79% C; 60-69% D; 59 and below F;

You will need 70% or better to successful in this class.

Required Text, Readings, Materials:

- Calculus Concepts: An Informal Approach to the Mathematics of Change Fifth Edition by Latorre, Kenelly, Biggers, Carpenter, Reed and Harris. You may choose to purchase the textbook also but know that there is an e-text online. If you want to purchase this code or and the textbook from the Casper College Bookstore, their information is as follows: phone 307-268-2202 or online at [Casper College BookStore](#).
- **Calculator:** It is a requirement that you have a graphing calculator for this course. Not only do you need one that will graph functions, but it must also be able to handle lists of data for plotting and looking at regression lines. These cost \$100 and up. You may also purchase a calculator from our bookstore (see above). There are many brands which are acceptable, but the TI-84 will be strongly recommended and will be used on the calculator pages for this class website. If you find the price too prohibitive, please consider these options:
 1. You may rent a TI-83 or TI In-Spire calculator. This means you can use the calculator for the semester. All you have to do is check out the calculator and fill out a form and pay a rental fee. You may do this through the Math Lab, PS 104 or call (307) 268-2865.
 2. The math department has set up a "Calculator/Book Selling Board" outside of the Math Lab. This means that if you want to buy or sell your calculator before/after the end of the course – here is a mechanism for you to do so.
 3. Note: If you intend to go on in mathematics, e.g. Business Calculus II, or statistics these calculators will be invaluable. So you can consider it a long-term investment.
- If you have any questions about calculators, please do not hesitate to ask.

Last Date to Change to Audit Status or Withdraw with a W Grade:

Thursday, November 12, 2015

I do adhere to this date

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs and or the Vice President for Student Services.

Academic Dishonesty: (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The

Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Tentative Schedule for Math 2350 – Fall 2015
Tentative Schedule for Math 2350, Fall 2015
Please refer to our Moodle Class Site for changes and updates

Week #1	beginning 8/24:	Chapter 1 (1.1-1.2)
Week #2	beginning 8/31:	Chapter 1 (1.3-1.5)
Week #3	beginning 9/7:	Chapter 1 (1.5-1.7)
Week #4	beginning 9/14:	Chapter 1 (1.8-1.10)
Week #5	beginning 9/21:	Chapter 1, (1.11-1.12)
Week #6	beginning 9/28:	Exam #1 (Chapter 1), Project #1
Week #7	beginning 10/5:	Chapter 2 (2.1-2.2)
Week #8	beginning 10/12:	Chapter 2 (2.3-2.4)
Week #9	beginning 10/19:	Fall Break (no classes 10/19 & 10/20), Chapter 2 (2.5)
Week #10	beginning 10/26:	Chapter 2 (2.6), Exam #2 (Chapter 2) , Chapter 3 (3.1)
Week #11	beginning 11/2:	Chapter 3 (3.2-3.4)
Week #12	beginning 11/9:	Chapter 3 (3.5-3.6)
Week #13	beginning 11/16:	Exam #3 Chapter 3; Project #2 , Chapter 4 (4.1)
Week #14	beginning 11/23:	Chapter 4 (4.2), Thanksgiving (Campus closed Wed-Fri)
Week #15	beginning 11/30:	Chapter 4 (4.3-4.4)
Week #16	beginning 12/7:	Chapter 4 (4.5) Exam #4 Chapter 4
Week #17	beginning 12/14:	Finals Week: Cumulative Final Chap 1-4