Math 1071Q — Calculus for Business and Economics (Spring 2020)

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Instructors

Changes have been made to this syllabus to reflect the transition to an online class due to COVID-19. These changes are in red.

About the course

Welcome! This course is an introduction to calculus and applications designed primarily for students majoring in business, economics, or the life and social sciences. We will cover essential concepts of differential and integral calculus.

Textbook

Calculus, Applications and Technology (3rd edition) by Edmond C. Tomastik, bundled with *WebAssign* code.

There are three ways to purchase the text and the WebAssign access code:

1. Get the text and WebAssign access code bundled together at the UConn Bookstore for $80.
2. Buy the WebAssign access code when you access your homework through HuskyCT. This costs $75 and includes access to an e-book.
3. If you bought the 1070Q/1071Q bundle previously, you will already have access, see note below. If you are taking 1070Q in the future, you might want to consider this bundle. Both books are included for $110 (instead of $80 each). It is available from the bookstore.

You will have **two weeks of free access** to WebAssign which includes an e-book, so you can get started right away in case you need some time to arrange to buy textbook with the access code.

If you bought the MATH 1070/1071 textbook bundle you can use your same WebAssign/Cengage login credentials for MATH 1071Q at no additional cost. Please remember to use your same WebAssign/Cengage login credentials when logging into your WebAssign course through HuskyCT for the first time semester. If you don't use those same login credentials your access will not carry over. If you are taking courses out of sequence, (taking 1071Q first but 1070Q later), you might want to buy the 1070/1071 bundle from the bookstore. It includes textbooks and WebAssign access for both courses for $110.

If you have any questions regarding your WebAssign access, please contact Cengage Tech Support at 800-354-9706 / support.cengage.com

Calculators

Graphing calculators: TI 82, 83, 84, 84 plus, 85 or 86 may be used. Models TI-89 and above **(including TI-Nspire)** are not permitted on the exams or quizzes. See this link (from the University of Arizona) for more detailed description of what is and is not allowed (including Casio brand calculators).

WebAssign

Registration
The homework for Math 1071 is assigned online using the online home work system WebAssign. To access your homework online you must go to Husky CT.
Browsers
Please note that many students have experienced problems using WebAssign with Internet Explorer or Safari. We recommend that you use Firefox or Chrome.
Homework
There will be homework assignments for each section of the text. Homework due dates will be set by individual instructors. **You will get 6 attempts to answer each question.** After each attempt, you will be told whether or not your answer is correct. After 3 attempts, you will be told the answer and then given different numbers for your next three attempts. If you are not able to get the correct answer after your initial attempts, we recommend that you seek help from your instructor, the Q-Center or another student.

Worksheets, Quizzes and Exams

Worksheets

There is a worksheet that corresponds to each section covered in the textbook. You can access them under the outline tab above. Each worksheet lists the

sections objectives, has a few practice problems and has suggested textbook problems. These practice problems are meant to prepare you for the quizzes and exams. Worksheets do not need to be turned in and solutions are posted. It is recommended that you complete the worksheets before the quizzes each week. If you get stuck, review your class notes and the textbook and/or go to office hours. Once you are confident in your solutions, compare your answers to the posted solutions. Reading solutions as an alternative to doing the problems on your own is NOT a good strategy.

Quizzes

There will be a quiz every Friday on the material covered the previous week. (e.g During Week 2, there will be a quiz on the material covered during Week 1). The week 1 quiz covers material from the first day of class (A.1). Quiz questions will be of similar style and difficulty as the worksheet questions. In fact, at least one question each week will be the same as a worksheet question with different numbers. Make-up quizzes are generally not allowed. If you miss a quiz for extenuating circumstances, you must contact your instructor as soon as possible. All make-ups must be completed within one week of the original quiz date. Note: Quizzes will still be given on Fridays. They will be submitted with on HuskyCT or Webassign. Instructions are provided in HuskyCT.

Exams

There are two exams during the semester and a cumulative final exam. Dates and sections covered are listed below. Exam questions will also be similar style and content as worksheet questions but will generally NOT be the same as worksheet questions. Memorizing worksheet solutions is not the right approach for studying, you must work to understand all the topics in each section. If you miss an exam for any reason you must contact your instructor within 50 hours to discuss the possibility of a make-up exam. All make-ups must be completed within one week of the original exam date. Note: We will still have both midterm 2 and the final exam. Please see the exam info tab for changes to how these exams will be administered.

Grading

Category	Where	Description	Percentage Toward Grade
Homework	WebAssign	One assignment per topic	10%
Quizzes/ Participation	Quizzes: Fridays in class	Quizzes: Once a week (12 total, lowest 2 dropped), Participation: At your instructor's discretion	20%
Exam 1 (Feb 24)	50 min, in class	Covers A.1, A.2, A.6, 1.1-1.5, 3.1-3.3, More info	20%
Exam 2 (April 13)	50 min, in class	Covers 4.1-4.5, 3.4, 5.1-5.6, More info	20%
Final Exam	2 hours, during final exam week	Cumulative, More info	30%

Note: The grading breakdown remains the same. However, students have the option to replace their exam 2 score with their final exam, if it is in their benefit.

Academic integrity

Please be familiar with the ~~university policy on academic integrity.~~ All breaches of this code of conduct will be taken seriously and handled as per university regulations.

Special accommodations

Student Athletes and Students with Disabilities should inform your instructor of your commitments as an athlete, any special needs that you have, etc. within the first three weeks of the semester. You will be expected to bring in a letter from the Athletics Department or the Center for Students with Disabilities.

The University Senate passed a motion on about religious observances which stipulated that Students anticipating such a conflict should inform their instructor in writing within the first three weeks of the semester, and prior to the anticipated absence, and should take the initiative to work out with the instructor a schedule for making up missed work. For conflicts with final examinations, students should, as usual, contact the Dean of Students.

Note: We know that this transition to online classes has the chance to increase the number of students who need accommodations and the form those accommodations will take. We will work with all students to the best of our ability to ensure their specific needs are met the best we can. Please contact your instructor to discuss any needs to you.

Contact

The course coordinator: Professor Katherine Hall(katie.hall@uconn.edu). Or your instructor.

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Tentative Outline

Google Calendar Link: https://calendar.google.com/calendar/b/1?cid=dWNvbm4uZWR1XzdkYmFlaGVhOGs0bW44cjE0bm12YmxocGgwQGdyb3VwLmNhbGVuZGFyLmdvb2dsZS5jb20

Calculus: Applications and Technology (3rd edition), by E. Tomastik

Days named "Review" can also be used as catch up days.

Week	Section	Topic	Worksheets	Worksheet Solutions
1	A.1	Exponents and Roots	Worksheet A.1 .pdf	Solutions .pdf
	A.2	Polynomials and Rational Functions	Worksheet A.2 .pdf	Solutions .pdf
		Quiz 1 A.1		
2	A.6	Lines	Worksheet A.6 .pdf	Solutions .pdf
	1.1	Functions	Worksheet 1.1 .pdf	Solutions .pdf
	1.4	Combinations of Functions	Worksheet 1.4 .pdf	Solutions .pdf
		Quiz 2 A.2		
3	1.2	Mathematical models	Worksheet 1.2 .pdf	Solutions .pdf
	1.3	Exponential Models	Worksheet 1.3 .pdf	Solutions .pdf
		Quiz 3 A.6, 1.1, 1.4		
4	1.5	Logarithms	Worksheet 1.5 .pdf	Solutions .pdf
	3.1	Limits	Worksheet 3.1 .pdf	Solutions .pdf
		Quiz 4 1.2 and 1.3		
5	3.2	Rates of Change	Worksheet 3.2 .pdf	Solutions .pdf
	3.3	The Derivative	Worksheet 3.3 .pdf	Solutions .pdf
		Review		
		Quiz 5 1.5 and 3.1		
6		**Exam 1 (Mon, Feb 24, in class)**		
	4.1	Derivatives of powers, exponents and sums	Worksheet 4.1 .pdf	Solutions .pdf
	4.2	Derivatives of products and quotients	Worksheet 4.2 .pdf	Solutions .pdf
		No Quiz		
7	4.3	Chain rule	Worksheet 4.3 .pdf	Solutions .pdf
	4.4	Derivatives of exponential and logarithmic functions	Worksheet 4.4 .pdf	Solutions .pdf
	3.4	Local Linearity	Worksheet 3.4 .pdf	Solutions .pdf
		Quiz 6 4.1 and 4.2		

8	4.5	Elasticity of Demand	Worksheet 4.5 .pdf	Solutions .pdf
	5.1	The first derivative	Worksheet 5.1 .pdf	Solutions .pdf
		Quiz 7 4.3, 4.4 and 3.4		
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		Spring Recess		
		Material after this point will be taught online.		
9	5.2	The second derivative	Worksheet 5.2 .pdf	Solutions .pdf
	5.3	Limits at infinity	Worksheet 5.3 .pdf	Solutions .pdf
		Quiz 8 4.5 and 5.1		
10	5.4	Curve sketching	Worksheet 5.4 .pdf	Solutions .pdf
	5.5	Absolute Extrema	Worksheet 5.5 .pdf	Solutions .pdf
		Quiz 9 5.2 and 5.3		
11	5.6	Optimization and modeling	Worksheet 5.6 .pdf	Solutions .pdf
		Review		
		Quiz 10 5.4 and 5.5		
12		**Exam 2 (Mon, April 13) See Exam Info Tab for Details**		
	6.1	Antiderivatives	Worksheet 6.1 .pdf	Solutions .pdf
	6.2	Substitution	Worksheet 6.2 .pdf	Solutions .pdf
		No Quiz		
13	6.4	The definite integral	Worksheet 6.4 .pdf	Solutions .pdf
	6.5	The fundamental theorem of calculus	Worksheet 6.5 .pdf	Solutions .pdf
		Quiz 11 6.1 and 6.2		
14	6.6	Area between two curves	Worksheet 6.6 .pdf	Solutions .pdf
		Review		
		Quiz 12 6.4, 6.5 and 6.6		
Finals Week		**Cumulative Final – See Exam Info Tab for Details**	Final Exam Review Packet .pdf Review Packet with space to write .pdf	Solutions .pdf