

Math 1120: Business Calculus

Section 004 3:05pm-4:20pm Tuesday, Thursday, Centennial Hall 188

University of Colorado at Colorado Springs

"The essence of mathematics is not to make simple things complicated, but to make complicated things simple."-- S. Gudder

Spring 2011

Instructor: Mrs. Erin Rossing, 719-255-3869, erossing@uccs.edu

Office Hours: ENG 289, 2:00pm-3:00pm Tue., Thur. or by appointment

Course Title: Math 1120 – Business Calculus 004

Course Meeting Time: 3:05pm-4:20pm Tue., Thur.

Course Room Number: Centennial Hall, room 188

Course Text: Bittinger, Marvin and Ellenbogen, David Calculus and Its Applications, Pearson Addison Wesley, 2008 ISBN: 0-321-39534-4

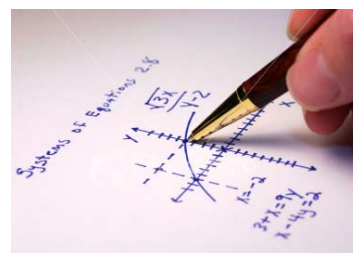
▣ **Course Description:** Students will study limits, differentiation and integration of functions and curves apply those skills to examples in business and economic modeling such as maximum and minimum values, and optimization.

Materials beyond basic class supplies:

- (1) Scientific non-graphing Calculator (EX: Sharp EL-W535 "WriteView")

Grading Scheme:

- Exams/Quizzes: 55%
- Homework: 20%
- Final Exam: 20%
- Attendance: 5%



Homework and weekly routine:

- 1) Homework is assigned most class days and is collected each **TUESDAY** for a total of 10 points per homework set. Each set of problems will be assessed for accuracy for a total of 8 points per assignment and 2 points given for completing the entire assignment.
- 2) Students will receive 0 credit for the completion grade of homework unless the entire homework set is complete, all work is shown, and completed to a high level of excellence. (neat and tidy work that shows effort and critical thinking).
- 3) Absolutely **no late homework** will be accepted. At the end of the term, the two lowest homework grades will be dropped. If you are unable to attend class, you may email me the homework in a single PDF file or leave it in my box.

Class Expectation: Respect and Responsibility

Academic Dishonesty:

- 1) There is ZERO tolerance for academic dishonesty (i.e. cheating of any kind, including misrepresenting one's work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. (i.e. plagiarism)). School wide policy will be followed in such instances and the student will receive a zero for that assignment.

Attendance and Tardy Policy:

- 1) Attendance and punctuality is crucial for this course. Students are expected to be present, prepared, and on time. 5% of your grade is based on attendance. Please email the instructor of any absences.
- 2) If you need to miss an exam, arrangements must be made prior to the absence and arrangements made with the testing center.

Extra Help:

Math Learning Center – Room ENG 136

Disability Services and Testing Center: 719-255-3354, dservice@uccs.edu

Important Dates:

Last Day to drop with no penalty: February 2nd

Last Day to drop without special permission from the Dean: April 1st

Spring Break: Week of March 21-25

Final Exam: Thursday, May 12th from 1:40pm-4:20pm

*I reserve the right to change or revise any of the statements of this syllabus if necessary during the course.

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#	Date	HW DUE	TOPIC
1	Tue. Jan 18th	Purchase Non-graphing Calculator and textbook	R1-2: Graphs and Equations, Functions and Modeling
2	Thur. Jan. 20th		R3-4: Finding Domain and Range, Slope, Linear Functions
3	Tue. Jan. 25th	R1(pg. 11-3): #1,5,10,14,18,21,24,29 R2:(pg.24-8): #3,4,16,21,23,34,39,46,55,60 R3:(Pg. 36-8): 4,8,17,20,28,45,50 R4:(Pg. 51-2):1,4,16,21,24,31,39,47,72,75	R5: Non-linear Functions and Models 1.1 Limits- Numerically and Graphically
4	Thur. Jan. 27th		Take Pre-Assessment in class 1.2 Limits Algebraically
5	Tue. Feb. 1st	R5:(Pg.70-2):2,7,16,23,33,46,62,77,82 1.1:(Pg.110-2):7,14,15,28,29,32,36,37,38,39,49,56 1.2:(Pg.121-2):3,6,11,15,19,19,22,27,30,37,43,52	1.3-1.4 Average rates of change, limit definition-derivative
6	Thur. Feb. 3rd		1.5 Differentiation Power, Sum, and Difference Rules
7	Tue. Feb. 8th	1.3:(Pg.130-3):2,7,20,21,27,36,41 1.4:(Pg.145-6):3,10,15,20,24,25,27 1.5:(Pg.156-7):3,8,22,26,45,56,71	1.6- Differentiation Product and Quotient Rules
8	Thur. Feb. 10th		1.7- Chain Rule 1.8 Higher Order Derivatives
9	Tue. Feb. 15th	1.6:(Pg.165-6):2,4,9,16,17,22,30,44,103 1.7:(Pg.174-5):1,4,11,16,20,23,31,45,50,55 1.8:(Pg.181-2):2,5,10,19,25,33,36,45,49	Review for Test 1
10	Thur. Feb. 17th		Test 1- Chapter 1
11	Tue. Feb. 22nd		2.1 Max and Min with 1st derivative
12	Thur. Feb. 24th		2.2 Max and Min with 2nd derivative
13	Tue. March 1st	2.1:(Pg.211-2):1,7,12,17,21,27,33,70,79 2.2:(Pg.228-9):1,8,11,36,43,50	2.4 Absolute Max and Min
14	Thur. March 3rd		2.5 - Absolute Min and Max Applications
15	Tue. March 8th	2.4:(Pg.255-6):4,7,10,13,20,25,33,50,73 2.5:(Pg.270-2):7,10,15,17,20,24,30,37	2.6 Differentials
16	Thur. March 10th		2.7 Implicit Differentiation and Related Rates
17	Tue. March 15th	2.6(Pg.281-3):5a-c,12,19,22,28,35,41,52 2.7(Pg.288-9):1,3,10,16,21,23,33,40	Review for Test 2
18	Thur. March 17th		Test 2 - Chapter 2
	March 21-25		SPRING BREAK - NO CLASSES
19	Tue. March 29th		3.1 Exponentials
20	Thur. March 31st		3.2 - Logarithms
21	Tue. April 5th	3.1:(Pg.315-6):1,8,11,15,18,26,38,41,55 3.2(Pg.332-3):1,4,12,16,20,25,27,29,35,40,43,48,54	3.3-3.4 Applications - Growth and Decay
22	Thur. April 7th		3.5 Derivatives of Exponentials and Logarithms
23	Tue. April 12th	3.3(Pg.347-9): 1,6,7,13,16,24,44 3.4(Pg.361-3):1,7,15,20,27,28,30,33) 3.5(Pg.368-9):1,9,17,23,26,30,37,41	4.1-2 Areas under Graphs, Anti-derivatives, and Integrals
24	Thur. April 14th		4.3- Area and Definite Integrals
25	Tue. April 19th	4.1(Pg.398-9):3,6,13,16,23,26 4.2(Pg.409-10):1,4,9,15,19,27,32,43,47,50 4.3:(Pg.421-3):1,3,5,8,9,10,15,17,27,33,38,44,51	4.4- Properties of Definite Integrals
26	Thur. April 21st		4.5-4.7 U-substitution and tables
27	Tue. April 26th	4.4(Pg.433-5):1,7,13,15,17,26,34,45,51 4.5:(Pg.442-3):1,6,7,12,17,27,43,48,55,56 4.7:(Pg.1,5,6,11,13,19	6.1-6.2 Functions of Several Variables
28	Thur. April 28th		Test 3- Chapters 3 and 4 (6 - EC)
29	Tue. May 3rd	6.1:(Pg.545-6):1,3,8,10 6.2(Pg.554-5):1,5,9,12,20,21,23,29,35,40,41	Review
30	Thur. May 5th		Review
31	Thur. May 12th	FINALS	1:40pm to 4:20pm