

MATH 120

CALCULUS FOR BUSINESS ANALYSIS

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Meeting Times: MWF 1 -1:50 pm in Room BA 251

Office Hours: Weds 5-6pm, Fri 12-1 pm, 2-3 pm and by appointment if necessary.

Required Online Homework Access/Optional Text: Mathematics, An Applied Approach, 8th edition.

Sullivan and Mizrahi. You have several options: 1. Black & White book with code (\$52), 2. Color book with code (\$81), or 3. Purchasing the freestanding code (with online textbook access) (\$67 at bookstore, \$50 online from the web address below) All are very reasonably priced for a college textbook.

<http://edugen.wiley.com/edugen/class/cls44648/>

Required Materials: You must have a scientific calculator for this course. However, the emphasis of this course will be applications of Business Math, rather than the calculator and its capabilities. Cell phones ARE NOT PERMITTED for use as a calculator.

Course Topics: Math 120 is designed to teach students the fundamentals of mathematical concepts used in business. Topics include linear systems, mathematics of finance, functions and their graphs, logarithmic and exponential functions, calculus including differentiation and integration, and optimization.

Grade Breakdown:	Homework	15%
	Exam 1	20%
	Exam 2	20%
	Exam 3	20%
	Final Exam	25%

*******NOTE: Your final exam score IS NOT your course grade*******

Exams: Exam 1 will be given the **week of Oct 8**, Exam 2 will be given the **week of November 5**, and Exam 3 will be given the **week of Dec 3**. The final exam will be administered on Saturday, **Dec 8th from 1:00-3:00 p.m.** NO MAKE UP EXAMS WILL BE GIVEN.

Cheat Sheets: When taking exams, you will be allowed **one** 8.5X11 sheet of notes. You may put whatever you want on the sheet. However, you are strongly cautioned to be VERY conservative in making your cheat sheet. If you are having to reference examples during the exam, **YOU DID NOT STUDY HARD ENOUGH**. Your cheat sheet should be for quick reference. Running out of time because you looked everything up before doing it will likely result in a terrible exam grade

Homework: Homework is to be completed online. People who do not do the homework will have the chance to do so this summer or fall. (Approximately 1 in 5 repeat this class. Don't be one of them!)

Tutoring: There is free tutoring available to all Math 120 students. There will be tutors available to you Monday through Friday in GMCS 409. A complete schedule will be posted on my website and on blackboard. In addition to the tutoring in Room GMCS 409, you should take advantage of my office hours. I am there to help you and answer any questions you may have about the course. If you cannot attend office hours because of scheduling conflicts, we can set up an appointment at a time that is mutually convenient.

Blackboard: I will continually update your grade on blackboard. You can see your current grade in the class by going to blackboard.sdsu.edu and logging in with your RedID and WebPortal password. The “Weighted Total” is your current course grade at that moment.

Some Basics:

- Turn off your cellphones before coming to class—not on vibrate mode, but OFF.
- DO NOT go outside in the middle of class to make or answer a phone call. It disrupts the entire class
- Do not talk while I am lecturing or while other students are asking questions.
- Do not come to class late, and do not leave early. It is not only inconsiderate, but also quite disruptive to other students. If it is a consistent problem, the matter will be addressed on a one-to-one basis. If the problem continues, we will "curve" your grade accordingly to adjust for the disruption of other students.
- Comments about another's race, ethnicity, accent, appearance, intelligence, or sexual orientation will not be tolerated on any level.

Tentative Schedule (subject to change slightly)

WEEK OF	TOPICS COVERED	CHAPTERS
Aug 27	Introduction, Algebra Review (Exponents, Radicals, Factoring), Lines.	Appendix, Chapter 1
Sep 3	Linear Equations, Cost, Revenue, Profit, Break Even, Supply, Demand.	Chapter 1
Sep 10	Systems of Equations, 2 & 3 variable, Matrices using TI calculators	Chapter 2
Sep 17	Finish up Systems of Equations. Finance: Simple interest, Compound intst.	Chapters 2 & 5
Sep 24	Finance: Annuities, Sinking funds, Amortization (Loans)	Chapter 5
Oct 1	Functions: graphs, domain, range, shifts, reflections	Chapter 10
Oct 8	EXAM 1 Piecewise functions, Quadratic functions, Power functions	Chapters 10 and 11
Oct 15	Rationals, Exponentials, Logs, Continuously compounded interest	Chapter 11
Oct 22	Limits of functions, one-sided, continuity, infinite limits	Chapter 12
Oct 29	Derivatives: definition of, rules of differentiation, product & quotient,	Chapter 13
Nov 5	EXAM 2 Derivatives of exponentials, logs, second derivs.	Chapter 13
Nov 12	Horizontal/Vertical tangents, 1st derivative test, 2nd deriv test	Chapter 14
Nov 19	More on graphing using derivatives, intervals of increase/decrease	Chapter 14
Nov 26	Elasticity of Demand, Indefinite Integrals, Integration by Substitution	Chapters 14 and 15
Dec 3	EXAM 3 More Integration by Substitution, Definite Integrals,	Chapter 15
Dec 8	FINAL EXAM SATURDAY, DEC 8, 1PM-3PM	

More About WileyPlus and Your Homework:

Below is the web address you must use to access your online homework. When first visiting the site, you will be asked to register yourself using the code that came with your textbook. You will be guided through the registration process (entering your email address, password, student ID, textbook code, etc). Once you have done that, you should be able to go directly to WileyPlus.com and login using your email and password. It should take you directly to our class site so that you can complete your homework.

<http://edugen.wiley.com/edugen/class/cls44648/>

Each of the three homework assignments will be due the day of the exam for which it applies.

Multiplication of any kind must be indicated with a * symbol.

Exponents are indicated with a ^ symbol

PEMDAS dictates the way in which the computer interprets your answer. For example: Suppose the answer is

$\frac{x-9}{x^2+4}$. If you enter it as $x-9/x^2+4$, the computer would read this as $x - \frac{9}{x^2} + 4$. The correct way to enter the result is with parentheses around the numerator and denominator: $(x-9)/(x^2+4)$.

As another example, $\frac{15\sqrt{x-9}}{(4x+2)^2}$ would need to be typed into the computer as:

$(15*(x-9)^(1/2))/(4*x+2)^2$