

MATH 120

CALCULUS FOR BUSINESS ANALYSIS

Texts used:

Required Online Homework & E-Text: Mathematics, An Applied Approach, 8th edition. Author: Sullivan.
Or

Custom Text for SDSU: Mathematics, An Applied Approach, 10th edition. Author: Sullivan.

Required Materials:

You must have a scientific calculator for this course. However, the emphasis of this course will be applications of Business Calculus, 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

1. Linear systems of equations/matrix algebra
2. Functions: linear, quadratic, rational, piecewise, exponential, logarithmic, domain, range, intervals of increase & decrease, maxima, minima, average rate of change, difference quotient, secant lines
3. Calculus: limits, derivatives and applications of derivatives including absolute maxima/minima, graphing functions; integrals including applications of integration, integration by substitution method
4. Mathematics of Finance including simple & compound interest, annuities, sinking funds, amortization of loans

Math 120 Student Learning Outcomes

- A student will be able to categorize matrix algebra problems and use appropriate theorems, formulas, and algorithms to solve them.
- A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.
- A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.
- A student will be able to interpret and analyze information to develop strategies for solving problems in business and behavioral science involving related rates and optimization problems.
- A student will be able to communicate the mathematical process and assess the validity of the solution.

Exams: Some sections of Math 120 have in-class exams at regularly scheduled class times. Other sections have group exams given on Wednesday evenings from 7pm-8:30pm. Please consult online class schedule for details

Tutoring: There is free tutoring available to all Math 120 students.

Students with Disabilities: Please come see me during the first week of class if you have a disability. Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact Student Disability Services at 619-594-6473 or visit them at: <http://www.sa.sdsu.edu/sds/index.html>