

Introductory Calculus for Business and Social Sciences

Course. Introductory Calculus for Business and Social Sciences (Math D12.27). 5 units (60 hours total per quarter).

Time and Location. Spring 2016, MW, 4:00 pm – 6:15 pm, Room: G-6.

Instructor. Francisco Villarroya Alvarez.

Office hours. M 2:45-3:45 pm; W 2:45-3:45 pm at the Math, Science and Technology Resource Center (S43). Additional hours by appointment.

Prerequisites. Math 11 or Math 41.

Textbook. Calculus and its Applications, 10th Edition. Authors: Bittinger, Ellenbogen, and Sargent.

Required Materials. A scientific calculator is recommended.

Course Description. Introduction to limits, differentiation and integration of single variable functions. Differentiation of functions of several variables. Applications in Business, Economics, and Social Sciences.

Student Learning Outcome.

- Use correct notation and mathematical precision in the evaluation and interpretation of derivatives and integrals.
- Evaluate, solve, interpret and communicate business and social science applications using appropriate differentiation and integration methodologies.

Assesment. Two 50-minute midterm examinations will be given in class. These tests will be announced in advance.

A mandatory two-hour comprehensive final exam will be given at the end of the quarter. The **final exam** will take place on Wednesday 22nd of June 2016, 4pm - 6pm.

The contribution of each exam to the final grade will be as follows: 25% each of the two midterms and 50% for the final exam.

Grading scale. The following table shows the minimum percentage needed to guarantee the indicated grade:

Letter Grade	Percentage	Letter Grade	Percentage
A ⁺	[97, 100]	B ⁺	[87, 90]
A	[93, 97]	B	[83, 87]
A ⁻	[90, 93]	B ⁻	[80, 83]
C ⁺	[72, 80]	D	[50, 65]
C	[65, 72]	E	[0, 50]

Tentative Schedule. Classes will take place according to the following approximate timetable:

Week	Lecture	Task	Test
1	Prerequisites (Chapter R). Differentiation (1.1)		
2	Differentiation (1.2, 1.3, 1.4, 1.5)		
3	Differentiation (1.6, 1.7, 1.8)	Prob	
4	Applications of Differentiation (2.1, 2.2, 2.3, 2.4)		
5	Applications of Differentiation (2.5, 2.6, 2.7)		Test 1
6	Exponential and Logarithmic functions (3.1, 3.2, 3.3, 3.4, 3.5)		
7	Integration (4.1, 4.2, 4.3)	Prob	
8	Integration (4.4, 4.5, 4.6)		
9	Applications of Integration (5.1, 5.2, 5.3)		Test 2
10	Applications of Integration (5.4, 5.5, 5.6, 5.7)		
11	Functions of several variables (6.1, 6.2, 6.3)	Review	
12			Exam

Tutorials. Tutorial assistance often means the difference between students earning a passing or failing grade. Do not hesitate to come to my office hours to discuss homework or any aspect of the course. In addition, the Math, Science and Technology Resources Center (Room S43) offers free individual and group tutoring. Please take advantage of these free services.

Accommodations for students with disabilities. Disability Support Services (DSS) provides support services for students with disabilities. For more information or to make an appointment to request services, contact DSS at 408-864-8753.