

Instructor. Professor David C. Dobson, LCB 210, 585-7660, dobson@math.utah.edu

Office Hours. MWF 1:00 pm – 2:00 pm, by appointment, or drop by anytime.

Text: *Calculus*, by E. H. Johnston and J. C. Mathews.

Homepage: <http://www.math.utah.edu/~dobson/1250/>

Course Description. Introduction to differential and integral calculus. Limits, derivatives, and integrals will be developed as tools to analyze the properties of functions. Applications include motion and rates of change, optimization and approximation methods, differential equations, and the calculation of areas, volumes, and lengths. The following schedule of topics is **subject to change**, however the exam dates are fixed.

August	20-22 25-29	Handouts	Polynomial calculus	
September	2-5	1.1-1.4	Functions	
	8-12	1.5-2.2	Limits and derivatives	
	15-19	2.3-2.6	Derivatives	EXAM I (Sept. 19)
	22-26	2.7-3.1	Rules for differentiation	
October	29-1	3.2-3.5	Vectors	
	6-10	4.1-4.4	Applications of derivatives	
	13-17	4.5-4.9	Optimization, diff. eqns.	EXAM II (Oct. 17)
	20-24	5.1-5.4	The integral	
November	27-31	5.5-5.9	Integration techniques	
	3-7	5.10-6.3	Applications of the integral	
	10-14	6.4-6.6	Polar coordinates, work	EXAM III (Nov. 14)
	17-21	6.7-7.1	Moments, improper integrals	
December	24-26	7.2-7.4	Sequences and series	
	1-3	7.5-7.7	Power series, convergence	
	9		FINAL EXAM (1:00 – 3:00 pm)	

Grading Policy. Grades are based on the following: your two best scores on three in-class exams (50%), the final exam (25%), and homework assignments (25%). You may bring one sheet of paper, and a graphing calculator to any exam. Computers, PDAs, and wireless devices are not allowed in exams.

Computers. You are encouraged to use computers to help learn and enhance the material, as well as to solve and check homework problems. Keep in mind however that your goal is to *understand* the material and that you will not have the computer with you during exams.

Weekly Homework. *No late homework will be accepted.* Only a subset of the problems in each homework set will be graded. It is important that each student completes every homework set. Time and effort spent on homework is invariably reflected in exam scores.