



## MAS 117: Mathematics II – Summer 2007 – Dr. Ruben N. Mera

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14 regular 3-hour sessions.

Sec. 1: M. 9:00–12:00 and 13:00–16:00; W. 13:00–16:00

Sec. 2: T. 9:00–12:00 and 13:00–16:00; Th. 13:00–16:00

**Textbook:** Anton, H; Bivens, I; and Davis, S. Calculus 8<sup>th</sup> Ed. John Wiley & Sons Inc. 2005

### Grading Policy

Midterm Exam	45%
Final Exam	45%
Quizzes (4)	10%

*Lowest grade on quizzes is dropped. No make-up on quizzes, whatever reason, no exceptions*

### Syllabus: Tentative Schedule of Classes

Session	Chap/Sec.	Contents
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1	11.1-11.2	Polar coordinates; tangent lines
2	12.1-12.3	Three-dimensional space; vectors
3	12.4-12.6	Cross product; parametric equations of lines; planes
4	14.1-14.2	Functions of several variables; limits, continuity
5	14.3-14.5	Partial derivatives; the chain rule
6	14.6-14.6	Directional derivatives and gradients; tangent planes and normal vectors
7	14.8-14.9	Extremum problems: Maxima and minima.

### MIDTERM EXAMINATION

8	14.9	Lagrange multipliers
9	15.1-15.3	Double integrals
10	15.5	Triple integrals
11	16.1	Topics in vector calculus
12	16.2	Line integrals
13	16.3	Independence of the path
14	16.4	Green's theorem

### FINAL EXAM

On the website [http://www.geocities.com/dr\\_ruben\\_siit](http://www.geocities.com/dr_ruben_siit) you can find material for this course, including the class notes, and eventually, as the semester progresses, solved problems and exams.