

Math 22 - Calculus in Several Variables (Summer 2014)

General information

Lecture Time: MWF 01:00PM-03:30PM

Location: PhysSciences 110

Instructor: Wei Yuan

Email: wyuan2@ucsc.edu

Office Hours: TTh 01:00-02:00PM in McHenry 4112

TA: Tom Roher

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Sessions: TTh 02:00-03:45PM in Earth and Marine B210

Office Hours: TBA

Syllabus

Text: Rogawski, Calculus, Early Transcendentals 2nd edition

Grading: Homework 30%, Midterm 30%, Final 40%.

Weekly Plan:

Week 1

Vector geometry. Functions of several variables.

Week 2

Continuity and partial derivatives. The chain rule, gradient and directional derivative.

Week 3

Maxima and minima, including Lagrange multipliers. Midterm.

Week 4

The double and triple integral and change of variables.

Week 5

Surface area and volumes. Green, Gauss and Stokes formulas. Final.