

MTH254 Spring 2008

Professor: Miaohua Jiang
Office: 340 West Hall
Office Phone: *5951
Email: jiangm@wfu.edu
Office Hours: M 2-3 pm, W 1-2 pm, R 10-11 am, and by appointment
Class: 12:00 noon -1:15 pm TR, 102 Carswell

Course Description: Optimization Theory (1.5):

- Equilibrium comparative statics in n dimensions;
- Comparative statics with optimization in n dimensions;
- Unconstrained and constrained optimization problems in n dimensions;
- Lagrange multiplier methods;
- Sufficient conditions involving bordered Hessians;
- Inequality constraints; Kuhn-Tucker conditions;
- Economic Examples of Kuhn-Tucker Theory

Course Co-requisite/Prerequisite: MTH113, MTH121, ECN210

Text: Wade Hands, Introductory Mathematical Economics, second edition, Oxford University Press, 2004, Chapters 6-9

Examinations: One final exam will be given during the exam week at the end of Spring semester. One check-up take-home exam will be given around April 10.

Homework assignments : I will hand out homework assignments. You are required to solve the problems in the assignments and write up the solutions with necessary details. Homework assignments need to be turned in on time and they will be graded.

Grades : Letter grades will be assigned based on the total points (out of 200) a student earns during the half semester:

Homework: 80 pts, Homework assignments must be turned in on time. Late homework are subject to subs
Attendance, Class discussion participation, and quality of homework: 10 pts,
Midterm take-home exam: 10 pts

Final Comprehensive Examination: 100 pts

Honor Code: All work turned in for a grade should be your own work.

Study Guide (what to expect):

1. If you have not had ECN210 this semester, you need to read Chapter 3 yourself.
2. Due to the nature of economic models, working with equations of many variables and parameters is necessary. The course will emphasize how to apply calculus concepts and skills to abstract economic models.
3. Mathematical proof skills will be emphasized in order to obtain economic laws.

