

Math 530: Modeling case studies

Spring 2009

Instructor: Dr. Oleg Makhnin

Office: Weir 223

Office Hours:

M, W, F 1:30 -3 R 10-12 or by appointment

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Catalog description:

"Open-ended modeling projects from actual applications."

Textbook: none

COURSE POLICY

Your course grade will be determined on the basis of combined scores from Homework and 3-4 group Projects. Group projects will typically involve a class presentation and a written summary of the project. In order to make up any assignment, a valid excuse should be documented. The instructor decides if an excuse is a valid one.

Attendance is expected. You are encouraged to seek help from the instructor.

Homework: All homework is due by 5pm of the target date, unless otherwise specified. One lowest score will be dropped.

Grading is based on the percentage of total points earned (the individual homework and projects are not assigned a letter grade).

Course outline:

- time series modeling
- Fourier analysis and Principal Components analysis (signal processing and other applications)
- dimensional analysis
- heat equation
- topics as suggested by students