

# MATH 410B

## Advanced Statistical Methods II

Meets Tuesday in Bouillon 215 and Thursday in Bouillon 103

### Course Philosophy

In this course, we will study non-linear stochastic models of real world phenomena, analysis of variance, and general linear models.

### Student Outcomes

Students successfully completing Math 410b will employ correct statistical techniques to model linear and non-linear phenomena and to compare means via ANOVA techniques.

### Instructor: Michael A. Lundin

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### Office Hours

MTWThF 12:15-1:00

### Course Content

Week 1 More on Linear Regression

Week 2 Non-linear regression and Interaction

Week 3 Non-linear regression

Week 4 Non-linear Regression

Week 5 Introduction to ANOVA

Exam on Non-linear Regression: (In class)

Week 6 ANOVA

Week 7 ANOVA

Week 8 General Linear Models

Week 9 General Linear Models

Week 10 General Linear Models

Final Exam: (In

### Course Requirements

#### Project

You will design a statistical study, collect data, and write up your results in report form by the end of Week 8 of the class. Your report will include references and should be written according to American Psychological Association (APA) style. Guidelines for the write-up will be presented to you. This project will count as 20% of your final grade.

#### Homework

Homework will be assigned throughout the week and collected on Monday. You will be encouraged to work in teams. Your homework will count as 20% of your final grade.

#### Exams

There will be a mid-term exam and a final exam. Each exam counts as 30% of your final grade. Generally, the previous week's worth of homework will be handed in Mondays.

#### Special Accommodations

Please talk to me if you need special

MTWTHF 12.15-1.00

class) Tuesday,  
June 3, 2-4 pm

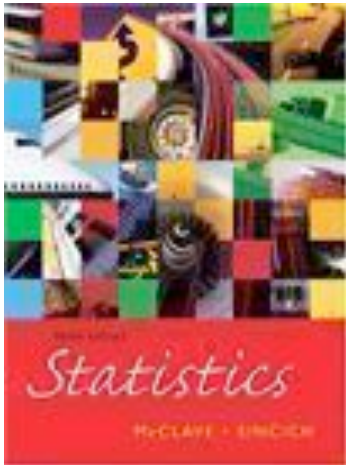
accommodations due to a disability.

If you cannot meet during this time, we can make arrangements to meet at another time.

TEXT

*Statistics* (10th ed)

McClave and Sincich



Assessments	Percent of Final Grade	Final Point Distribution	Final Grade
Written Homework	20%	93-100%	A
Project	20%	90-92%	A-
Midterm Exam	30%	87-90%	B+
Final Exam	30%	83-86%	B
		80-82%	B-
		77-79%	C+
		73-76%	C
		70-72%	C-
		67-69%	D+
		63-66%	D
		60-62%	D-
		Below 60%	F

