

## MME 527 Syllabus 2017

### Linear Models II

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#### Topics:

##### Linear Programming and Optimization

geometrical view  
formulation  
The Simplex Algorithm  
Duality  
Sensitivity Analysis

##### Combinatoric Graphs

basics  
matrix model; powers; eigenvectors  
application: Google searches

##### Project Management

PERT/CPM

##### Image Processing

##### Computer Graphics

homogeneous coordinates

#### Projects

Diet optimization - late January  
Binomial Graphs  
Google Searches  
Graphics & images

#### Grade

Projects 50%  
Homework 25%  
1 Exam 25%

#### Software Used (*as needed*)

Maple  
Matlab

Excel

web based applets

Remote Desktop (WPI computer account needed)