

**Title:** Quantitative Methods in Management

**Semester:** Spring 2017

**Number of credit hours:** 3

Instructor: Professor Kuo-Hao Chang ([chang@mx.nthu.edu.tw](mailto:chang@mx.nthu.edu.tw))  
Room 713R. Phone (03) 5742337

Lecture Time: TBA

TA: TBA

Office Hours: Th 11-12 pm or by appointment

**Prerequisites:** Statistics and Probability

**Textbook:**

1. *Introduction to Operations Research, Hiller and Lieberman, 2010*
2. *Essentials of Management Science- a modeling & case studies approach with spreadsheets by Frederick S. Hiller and Mark S. Hiller 2004*

**Student Learning Objectives:**

1. To be acquainted with methodologies used in quantitative decision making.
2. To be able to model operational problems
3. To be able to apply these methodologies to model, solve and analyze problems encountered in the management of technological system

**Course Topics**

- Introduction to Operations Research
- Linear programming: basic concept
- The art of modeling with spreadsheets
- Linear programming: formulation and applications
- What-if analysis for linear programming
- Transportation and assignment problems
- Simulation

**Grading Elements, Weighting and Scale:**

Grade Element	Weighting
Midterm	20%
Final	40%
Case study/Presentation	30%
Class Participation	10%

**Case study:** Assignments will be given in every lecture. Each assignment is due the following class. Students will team up, solve the problem, and give a presentation in class.