Course: IEEM302000 **Operations Research (II)**

Semester: Spring 2016

Number of credit hours: 3

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

Lecture Time: W 10:10 pm-12 pm, F 10:10-11 pm

TA: 郭柏毅, 高莞婷
Office Hours: Th 11-12 pm or by appointment

Prerequisites: IEEM203000 (Probability Theory), IEEM206000 (Differential Equations) or equivalent courses.
Textbook: *Introduction to Operations Research, Hiller and Lieberman, 2010*
Student Learning Objectives:

To develop an ability to model stochastic processes;
To develop an understanding of important qualitative characteristics of stochastic processes;
To develop an ability to analyze basic stochastic processes.

Course Topics

- Markov Chains (Chap. 16)
- Queueing Theory (Chap. 17)
- Inventory Theory (Chap. 18)
- Markov Decision Process (Chap. 19)
- Other interesting topics

Grading Elements, Weighting and Scale:

Grade Element	**Weighting**
Midterm 1	20%
Midterm 2	20%
Final	30%
Project	10%
Quizzes	20%
Class Participation	5%

Note: You are granted 5% extra points in this grading system.

General Policies:

Homework:
Homework will be assigned approximately once a week while I will not collect them. You should do the homework at home yourself. You are encouraged to discuss homework with your classmates.

Exams:
Exams will cover all materials taught in class. The two examinations are close book and notes. The midterm exam is temporarily scheduled for the 8^{tth} week of the semester and the exact date will be announced 3 weeks before the exam.

Quizzes:
There will be quizzes in class on a weekly basis. All the quiz problems are strongly related with the homework problems. You should fully understand every homework problem in order to succeed in the quizzes.

No Late to class!