

MECH3010 Engineering and Technology Management

<http://www.mech.hku.hk/bse/MECH3010/>

Mini-project (2013-2014)

The aim of the mini-project is to integrate the study topics in this course and demonstrate how the various theories, concepts, methods, and tools are interrelated and can be applied in real-life situations. This mini-project is intended to strengthen what you have learned during the lectures, by investigating the related topics further and by associating your learning to practical situations. It will also enable students to appreciate and learn skills in teamworking, oral presentation and report writing.

Students shall form a team of 5-6 persons to carry out the mini-project. They should discuss among themselves and select ONE of the following topics for the study (may modify the title to suit their interest). Each team should submit the student name list and the proposed project title **on or before 27 March 2014 (Thu)**. The study will include literature search and review, evaluation and analysis of the topic, and preparation of oral presentation and summary report.

Mini-project study topics:

Henry Mintzberg's Managerial Roles	Thorndike's Reinforcement Theory
SWOT Analysis	Job Characteristics Model
Management by Objectives	Simons' Four Levers of Control Model
Game Theory	Product and Technology Life Cycle
Work Specialization	Six Sigma
Learning Pyramid	Concurrent Engineering
The Leadership/Management Grid	Value Engineering
McGregor's Theory X and Theory Y	Reverse Engineering
Maslow's Hierarchy of Needs	Reengineering
Herzberg's Two-Factor Theory	Lean Manufacturing
McClelland's Acquired Needs Theory	Supply Chain Management
Equity Theory of Motivation	Deming's 14 Points
Expectancy Theory of Employee Motivation	Creativity Methods
Alderfer's ERG Theory	Queuing Theory

Submission and oral presentation:

Each student team shall prepare a Powerpoint presentation file of not more than twenty (20) slides to explain the study topic in a clear and systematic way. They should also prepare a summary report in one A4 page to highlight the key findings. The two files should be submitted before the oral presentation session which will be held on **28 Apr 2014 (Mon) at 12:30-14:20**. Each student team will have 8 minutes total for the oral presentation.

The mini-project will be assessed as a group based on the following criteria:

- Quality of the content
- Clarity of thought
- Teamwork skills
- Written and graphical communication
- Oral presentation skills