

## MECH3010/4410 Engineering and Technology Management

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

### Mini-project (2014-2015)

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, Powerpoint 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 **before 13 Feb 2015 (Fri)**. The study will include literature search and review, evaluation and analysis of the topic, and preparation of presentation file and summary report.

#### Mini-project study topics:

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

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 two A4 pages to highlight the key findings. The two files should be submitted before **17 Apr 2015 (Fri)**. Feedbacks will be provided to students near the end of the Semester.

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
- Powerpoint presentation skills