

Lingnan University
Department of Computing and Decision Sciences
The Second Term, 2007–2008
BUS 212: PROJECT MANAGEMENT
(three credits)

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<http://cptra.ln.edu.hk/%7Emmleng/mmleng.htm>

Class Times	Wednesdays (11:30am–1:00pm)	Fridays (3:00pm–4:30pm)
Class Rooms	BU 321	BU 321

The principles of project management, largely developed and tested on engineering projects, are being successfully applied to projects of all sizes and types within the business world. Furthermore, the role of project management in a cross section of applications such as information technology, product development, and construction is now emphasized. This course addresses the fundamental principles of project management, and the tools and techniques at our disposal to help achieve our goals. Topics covered include: project definition and start up; project attribute estimation; planning and scheduling; resource selection and allocation, implementation; post-project evaluation; project management as a career; skills and knowledge required by professionals, including decision-making and resource allocation appropriate to project phases; integration with other disciplines, including accounting and finance. The Microsoft Project software tool will be introduced for project scheduling and management.

Course Objective

This course deals with the decisions and actions related to planning, organizing, leading, and controlling programs and projects. Students are expected to gain a comprehensive understanding of:

- Strategy, organization and leadership in managing projects:
- Processes, methods & systems used to plan, schedule and monitor projects
- The application of these project management tools and techniques in a diversity of fields such as new product and process development, construction, information technology, health care, and applied research.

Learning will be through lectures, project/case studies, and written and oral reports by student groups on project management approaches and issues. Upon successful completion of this course, the student will have the necessary knowledge to:

- Assist the Project Officer assigned to a project in developing a project plan, scheduling activities, tracking progress, preparing status reports and managing changes.

- Perform the duties of a project analyst trainee in a corporate Project Management Office.
- Plan and manage a small project as project manager.

Course Materials

- **Textbook:** Clifford F. Gray and Erik W. Lawson. *Project Management: The Managerial Process*, Fourth Edition, McGraw-Hill Higher Education, 2008.

- **Supplementary Reading List:**

1. Pankaj Jalote. *Software Project Management in Practice*. Addison-Wesley, 2002.
2. James P. Clements and Jack Gido. *Effective Project Management*. Thomson, 2006.
3. Harold Kerzner. *Project Management: Case Studies*. 2nd Edition, John Wiley, 2006.
4. Harold Kerzner. *Project management: a systems approach to planning, scheduling, and controlling*, 8th Edition, John Wiley & Sons, 2003.
5. Mark C. Paulk et al. *The Capability maturity model: guidelines for improving the software process*, Addison-Wesley, 1995.
6. John M. Nicholas. *Project management for business and engineering: principles and practice*, 2nd Edition, Elsevier Butterworth-Heinemann, 2004.
7. Thomas Sheffrey. *PMP/CAPM Exam Preparation Guide*, John Wiley & Sons, 2006.

- **Project Management Glossary:** Students can quickly find the definitions of concepts in Project Management from the following resources:

1. Textbook, pp. 565—571.
2. <http://maxwideman.com/pmglossary/> (by Max Wideman)

- **Software:** Microsoft Project Professional 2003/2007 and *possibly* Microsoft Excel 2003.

Note: Microsoft Project Professional 2007 (Trial Edition) is included on the CD-ROM in the back of textbook. The trail period (120 days) is long enough to use the product during the class period. One may notice that only Microsoft Project Professional 2003 was installed in our lab; this mismatches the trial version that you may use after classes. Since the two versions have no big difference, the mismatch should not largely impact your learning. Nevertheless, I strongly encourage you to use a computer provided by Lingnan University in library or a lab.

Mark Distribution

Class Participation	5%
“Conveyor Belt Project” MS Project Assignment	25%
Course Project/Case	10% (Presentation 5%, report 5%)
Final Exam	60%

“Conveyor Belt Project” MS Project Assignment

This assignment is designed to reinforce the project management process concepts presented in the lectures. The students will use Microsoft Project to complete each of the first five parts to the overall Conveyor Belt Project assignment (provided by the textbook in Appendix 2 on pp. 558 – 564).

The five parts of this project exercise are described in the textbook. Mark distribution for the five parts is scheduled as follows:

Part	Value
Computer Project Exercise, Part 1	2%
Computer Project Exercise, Part 2	6%
Computer Project Exercise, Part 3	7%
Computer Project Exercise, Part 4	2%
Computer Project Exercise, Part 5	8%
Total	25%

Each Part will be assigned as a separate take-home assignment as indicated in the Section—Course Outline (Tentative). Each student has at least one week to complete his/her response for each part.

Project and Group Presentation

Each student will participate in one group which will be formed by the students rather than the instructor. Each group is managed by a leader who is selected by the group members. The leader is expected to report the member list and send the project report and presentation slides to the instructor. The group presentation is expected to take place in the last three classes. Each group is responsible to select a project topic from the project book [8] and other books in references, or any other suitable source (e.g., Internet [see “Some Internet Project Resources” below]).

Some Internet Project Resources

1. <http://www.pmforum.org/library/cases/index.htm>
2. <http://isb.wa.gov/tools/pmframework/examples.aspx>

Course Schedule (Tentative)

Introduction to Project Management

- **Jan. 23 & 25:** Chapters 1 and 2.
 - Introduction: Modern Project Management; Organization Strategy and Project Selection; Portfolio management.
 - Introduction to MS Project 2003: Project Management Quick Reference Guide; On-line tutorial: <http://pubs.logicalexpressions.com/Pub0009/LPMFrame.asp?CMD=ArticleSearch&AUTH=23>.

- **Jan. 30 & Feb. 13:** Chapter 3.
 - Organizational Strategy: Effective project management structure; Organizational culture.
 - In-class group discussion: “ORION Systems (A & B)”.

Project Planning & Scheduling

- **Feb. 15 & 20:** Chapters 4 and 5.
 - Defining the Project: Scope, WBS & OBS; Project Estimating & Costing.
 - Estimating Project Time and Costs (I): Guidelines for time, costs and resources;
 - Applications of MS Project Professional 2003.
- **Feb. 22 & 27:** Chapters 5 and 6.
 - Estimating Project Time and Costs (II): Methods for estimating; Creating a database for estimating.
 - Project Plan: Project network (AOA vs. AON); Critical Path Method (CPM); Lag relationship.
 - Applications of MS Project Professional 2003.
 - Lab session (on Feb. 27): Project construction with lag relations.
 - MS Project Assignment I: Conveyor Belt—Part 1.
- **Feb. 29 & Mar. 5:** Chapter 7 and Appendix 7.1.
 - Risk Management: Identification, assessment; Responses; Contingency planning, Funding and Time buffers; PERT.
- **Mar. 7, 12 & 14:** Chapter 8.
 - Scheduling Resources: Project constraints, Allocation; Resource-constraint scheduling; Critical-chain approach.
 - MS Project Assignment II: Conveyor Belt—Part 2.
- **Mar. 19, 26 & 28:** Chapter 9.
 - Reducing Project Duration: Rationale and options; Project cost-duration graph; Constructing cost-duration graph; Cost vs. Time.
 - Applications of MS Project Professional 2003.
 - MS Project Assignment III: Conveyor Belt—Part 3.

Project Organization, Leadership & Control

- **Apr. 2, 9, 11 & 16:** Chapter 13.
 - Progress and Performance Measurement and Evaluation: Project control process; Monitoring time performance; Integrated information system; Status report and Monitor progress; Earned-value analysis.
 - Applications of MS Project Professional 2003.
 - Formation of student groups for project study.
 - MS Project Assignment IV: Conveyor Belt—Part 4.

- **Apr. 18 & 23:** Chapter 10.
 - Leadership: Managing vs. Leading a project; Social network building; Ethics and project management; Qualities of effective project manager.
 - MS Project Assignment V: Conveyor Belt—Part 5.
 - Presentation slides and project report is due on April 25.

- **Apr. 25, 30 & May 2:** Group Presentations.

- **Final Examination** (TBA).

References

- [1] J. P. Clements and J. Gido. *Effective Project Management*. Thomson, Canada, 2006.
- [2] G. Courter and A. Marquis. *Microsoft Project 2000*. SYBEX, San Francisco, California, 1995.
- [3] M. C. Paulk *et al.* *The Capability Maturity Model: Guidelines for Improving the Software Process*. Addison-Wesley, 1995.
- [4] P. D. Gardiner. *Project Management: A Strategic Planning Approach*. Palgrave Macmillan, 2005.
- [5] C. F. Gray and E. W. Lawson. *Project Management: The Managerial Process*. McGraw-Hill Higher Education, New York, third edition, 2006.
- [6] P. Jalote. *Software Project Management in Practice*. Addison-Wesley, Boston, 2002.
- [7] H. Kerzner. *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*. John Wiley, eighth edition, 2003.
- [8] H. Kerzner. *Project Management Case Studies*. John Wiley & Sons, Hoboken, N.J., second edition, 2006.
- [9] J. H. Martino. *Research and Development Project Selection*. Wiley, New York, N.Y., 1995.
- [10] H. Maylor. *Project Management*. Prentice Hall, England, third edition, 2005.

- [11] G. McLeod and D. Smith. *Managing Information Technology Projects*. Boyd & Fraser, Danvers, MA, 1996.
- [12] J. R. Meredith and Jr. S. J. Mantel. *Project Management: A Managerial Approach*. John Wiley & Sons, Danvers, MA, sixth edition, 2006.
- [13] R. Murch. *Project Management : Best Practices for IT Professionals*. Prentice Hall, Upper Saddle River, N.J., 2001.
- [14] J. M. Nicholas. *Managing Business and Engineering Projects: Concepts and Implementation*. Prentice-Hall, Englewood Cliffs, N.J., 1990.
- [15] J. M. Nicholas. *Project Management for Business and Technology: Principles and Practice*. Prentice Hall, Upper Saddle River, N.J., 2001.
- [16] J. M. Nicholas. *Project Management for Business and Engineering: Principles and Practice*. Elsevier Butterworth-Heinemann, second edition, 2004.
- [17] PMBOK. *A Guide to the Project Management Body of Knowledge*. PA: Project Management Institute, Upper Darby, 2000 edition, 1996.
- [18] A. Sell. *Project Evaluation: An Integrated Financial and Economic Analysis*. Avebury, Brookfield, USA, 1991.
- [19] Thomas Sheffrey. *PMP/CAPM Exam Preparation Guide*. John Wiley & Sons, Danvers, MA, 2006.