



Lingnan University

Bachelor of Business Administration (Hons) Program

Management Science

Course: BUS 207 Term: 1st, 2006 – 2007
Hours/Term: 42 Credits: 3

Course Team

Instructor	Office	Phone	E-Mail	
Chung, Chi-wai	BUG14	2616-8105	chungcw@ln.edu.hk	Course Co-ordinator
Leng, Ming-ming	BUG15	2616-8104	mmleng@ln.edu.hk	http://cptra.ln.edu.hk/~mmleng/mmleng.htm
Sun, Daning	BUG21/1	2616-8092	dsun@ln.edu.hk	
Wong, Bo-kai	BUG11	2616-8096	bokwong@ln.edu.hk	
Wong, Man-leung	BUG08	2616-8093	mlwong@ln.edu.hk	

Prerequisites:

BUS 102 *Statistics for Business*

Course Description:

With millions of users, computer software is quickly becoming a universal decision making tool in the business world. This course focuses on creating effective and efficient computerized business models. It will use cases and examples extensively to introduce the various techniques in computerized decision making and modelling.

The process of creating computerized models is not a spectator sport - it is like experience - it must be learnt not taught. Every study has shown that creating computerized models is much more fun, effective and less painful if it is based on a strong foundation backed up with numerous "real life" examples.

It is through a series of these examples that students will gain the experience of using computer software to make business decisions.

Course Objectives:

This course is designed to focus on creating effective and efficient computerized business models. It will use extensive examples and cases to demonstrate the various computerized modelling approaches. Once completed, students will be comfortable with computerized modeling.

This course is also designed to enhance students' problem solving ability by making them aware of the interdisciplinary approach that all modeling is based on.

Teaching Approach

The instructor of the course decides on the teaching methods used in the section: Basic concepts and theories in terms of practical examples are discussed in classes. Laboratory sessions may be used to introduce the computer software.

A software package is introduced in the course. Students are expected to be familiarized with the software to solve large-scale real-world decision problems.

Students are welcome to contact the course coordinator if they have questions concerning administrative matters. For learning difficulties, students should seek advice from their instructors.

Required Textbook and other materials:

- Frederick S Hillier and Mark S. Hillier, *Introduction to Management Science*, 2th ed., McGraw Hill, 2004.
- Software used: MS Excel, MS Courseware and Crystal Ball

Other references:

- Bernard W. Taylor III, *Introduction to Management Science*, 7th ed., Prentice Hall, 2002.
- David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, *Quantitative Methods for Business*, 8th ed., West Publisher, 2001.
- David R. Anderson, Dennis J. Sweeney and Thomas A. Williams, *An Introduction to Management Science - Quantitative Approaches to Decision Making*, 9th ed., South-Western College Publishing, 2000.
- Rick Hesse, *Managerial Spreadsheet Modeling and Analysis*, Richard D. Irwin, 1997.

Assessment

Continuous assessment	15%
Mid-term Test (Week 8)	25%
Final Exam	60%
Total	100%

Students are assessed throughout the term on their attendance, class participation, exercises, etc.

Course Website

Course materials (assignments, data files, presentation slides) and information (such as midterm and final exams) related to the course will be maintained on the website **BUS207 - Management Science**. Students can access this website through the WebCT. Students are advised to check on this website frequently.

Warnings

Classroom disciplines: General rules should be observed. It is absolutely unacceptable to use mobile phones or pagers during class. Students are expected to attend every class. Punctuality is also very important.

Tests and Exams: Information on all tests and exams will be posted in the course website several weeks in advance of the events. Students should attend all the examinations. No re-assessment test or exam will be given to absentees for trivial excuses.

Other regulations in Lingnan University Calendar:

- Adding and Dropping Courses and Changing Courses / Sections.
- Class Attendance and Leave of Absence.
- Conduct of Student.

Tentative Schedule

Week	Topics	Chapter (Readings)
1	Introduction and how to use WebCT and computer software.	1.1 – 1.3
2 – 4	Inventory management with known demand Inventory management with uncertain demand	CD18.1 – CD18.7 CD19.1 – CD19.3
5 – 7	Queueing models Computer simulation: Basic concepts Computer simulation with Crystal Ball	14.1 – 14.3, 14.5 – 14.6 15.1 – 15.4 16 TBA
8	Linear programming: Basic Concepts Linear programming: Computer Solution	2.1 – 2.8 3.1 – 3.4
8	Mid-term Test, 28 October 2006 (Saturday, 1:30pm to 3:30pm)	Chapter 1, 18 and 19
9 – 10	Linear programming: Formulation and Applications Linear Programming: Sensitivity (What-if) analysis	4.1 – 4.7 5.1 – 5.6
11-12	PERT/CPM Models for project management	8.1 – 8.7
13	Goal programming (Optional)	11.1 – 11.3
13	Revision	

All assignments should be completed and handed in to the corresponding instructors by due date. The due date will be the week after the corresponding materials are covered.

All assignments should be properly typed and firmly stapled.

Students will be disqualified for plagiarism.

BUS207 Course Team

September 2006