

## Tamkang University Academic Year 106, 2nd Semester Course Syllabus

Course Title	DECISION ANALYSIS AND PRODUCTION MANAGEMENT	Instructor	MINGHE SUN
Course Class	TLQXM2A MASTER'S PROGRAM IN BUSINESS AND MANAGEMENT (ENGLISH-TAUGHT PROGRAM), 2A	Details	<ul style="list-style-type: none"> <li>◆ Selective</li> <li>◆ One Semester</li> <li>◆ 1 Credits</li> </ul>
D e p a r t m e n t a l   A i m   o f   E d u c a t i o n			
<p>I . Develop a business and management perspective for students.</p> <p>II . Train the professionals in the integrated fields of business and management.</p> <p>III . Cultivate the talents with both theory and practices in business and management.</p>			
D e p a r t m e n t a l   c o r e   c o m p e t e n c e s			
<p>A. Provide the basic knowledge of both theory and practices.</p> <p>B. Enhance the practical training for the current trends.</p> <p>C. Cultivate the ethics in business and management.</p> <p>D. Obtain the ability of analyzing industrial and business problems.</p>			
Course Introduction	<p>A survey of quantitative techniques and methodology as well as their applications to business decision making problems. The objectives of the course are for the students to develop quantitative concepts, to learn model formulation, problem solution, and result interpretation skills in a business environment, to broaden their perspective of general decision making concepts, and to improve their ability to analyze and solve managerial problems. Linear programming (LP), integer programming (IP), goal programming (GP), network models (NP), and other techniques are covered.</p>		

**The Relevance among Teaching Objectives, Objective Levels and Departmental core competences**

I.Objective Levels (select applicable ones) :

- (i) Cognitive Domain : C1-Remembering, C2-Understanding, C3-Applying,  
C4-Analyzing, C5-Evaluating, C6-Creating
- (ii) Psychomotor Domain : P1-Imitation, P2-Mechanism, P3-Independent Operation,  
P4-Linked Operation, P5-Automation, P6-Origination
- (iii) Affective Domain : A1-Receiving, A2-Responding, A3-Valuing,  
A4-Organizing, A5-Charaterizing, A6-Implementing

II.The Relevance among Teaching Objectives, Objective Levels and Departmental core competences :

- (i) Determine the objective level(s) in any one of the three learning domains (cognitive, psychomotor, and affective) corresponding to the teaching objective. Each objective should correspond to the objective level(s) of ONLY ONE of the three domains.
- (ii) If more than one objective levels are applicable for each learning domain, select the highest one only. (For example, if the objective levels for Cognitive Domain include C3,C5,and C6, select C6 only and fill it in the boxes below. The same rule applies to Psychomotor Domain and Affective Domain.)
- (iii) Determine the Departmental core competences that correspond to each teaching objective. Each objective may correspond to one or more Departmental core competences at a time. (For example, if one objective corresponds to three Departmental core competences: A,AD, and BEF, list all of the three in the box.)

No.	Teaching Objectives	Relevance	
		Objective Levels	Departmental core competences
1	1. Students will demonstrate knowledge of a broad spectrum of quantitative tools and methods, such as mathematical programming, networks modeling, project management, and inventory analysis, and their applications to business decisions.	C2	ABD

**Teaching Objectives, Teaching Methods and Assessment**

No.	Teaching Objectives	Teaching Methods	Assessment
1	1. Students will demonstrate knowledge of a broad spectrum of quantitative tools and methods, such as mathematical programming, networks modeling, project management, and inventory analysis, and their applications to business decisions.	Lecture, Problem solving	Written test

This course has been designed to cultivate the following essential qualities in TKU students

Essential Qualities of TKU Students	Description
◆ A global perspective	Helping students develop a broader perspective from which to understand international affairs and global development.
◆ Information literacy	Becoming adept at using information technology and learning the proper way to process information.
◇ A vision for the future	Understanding self-growth, social change, and technological development so as to gain the skills necessary to bring about one's future vision.
◇ Moral integrity	Learning how to interact with others, practicing empathy and caring for others, and constructing moral principles with which to solve ethical problems.
◇ Independent thinking	Encouraging students to keenly observe and seek out the source of their problems, and to think logically and critically.
◇ A cheerful attitude and healthy lifestyle	Raising an awareness of the fine balance between one's body and soul and the environment; helping students live a meaningful life.
◇ A spirit of teamwork and dedication	Improving one's ability to communicate and cooperate so as to integrate resources, collaborate with others, and solve problems.
◇ A sense of aesthetic appreciation	Equipping students with the ability to sense and appreciate aesthetic beauty, to express themselves clearly, and to enjoy the creative process.

#### Course Schedule

Week	Date	Subject/Topics	Note
1	107/02/26 ~ 107/03/04		
2	107/03/05 ~ 107/03/11		
3	107/03/12 ~ 107/03/18		
4	107/03/19 ~ 107/03/25		
5	107/03/26 ~ 107/04/01		
6	107/04/02 ~ 107/04/08		
7	107/04/09 ~ 107/04/15		
8	107/04/16 ~ 107/04/22		
9	107/04/23 ~ 107/04/29		
10	107/04/30 ~ 107/05/06		
11	107/05/07 ~ 107/05/13		

12	107/05/14 ~ 107/05/20	Introduction, LP Graphic Method, LP Sensitivity Analysis, LP Applications, Transportation and Assignment Problems	
13	107/05/21 ~ 107/05/27	Network Models, Integer Programming, Project Management	
14	107/05/28 ~ 107/06/03		
15	107/06/04 ~ 107/06/10		
16	107/06/11 ~ 107/06/17		
17	107/06/18 ~ 107/06/24		
18	107/06/25 ~ 107/07/01		
Requirement	Attendance is required.		
Teaching Facility	Computer, Projector		
Textbook(s)	Taylor, B. W., Introduction to Management Science, Twelfth Edition, Pearson Prentice Hall, Upper Saddle River, New Jersey, 2016. Handouts and Materials online.		
Reference(s)	Anderson, D. R., D. J. Sweeney, T. A. Williams, J. D. Camm, J. J. Cochran, M. J. Fry and J. W. Ohlmann, An Introduction to Management Science, Quantitative Approaches to Decision Making, 14th Edition, Cengage Learning, Boston, MA, 2016.		
Number of Assignment(s)	2 (Filled in by assignment instructor only)		
Grading Policy	◆ Attendance : 20.0 %   ◆ Mark of Usual :   %   ◆ Midterm Exam : 40.0 % ◆ Final Exam : 40.0 % ◆ Other ( ) :   %		
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> . <b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime          to improperly photocopy others' publications.</b>		