



Kuwait University
College of Business Administration
Information Systems & Operations Management Department

Course Syllabus

ISOM 205 – Introduction to Modeling and Decision-Making

Mon / Wed	09:30pm – 10:45am	Room D2-1021
Mon / Wed	11:00pm – 12:15am	Room D2-1021
Mon / Wed	02:00pm – 03:15am	Room D2-1021

Email : y.abdulsalam@ku.edu.kw or via MS Teams
Office : CBA South Building, 2nd Floor, ISOM Dept, Room A2-1005
Office Hours : Tuesday 10:30 – 12:30 pm or by appointment

Textbook: Bernard W. Taylor III. *Introduction to Management Science*, 12th edition, Pearson, 2016.

Course Description:

This course is designed to develop a basic understanding and competence in the use of quantitative methods to modeling and solving managerial problems. The focus is on optimization and modeling techniques such as linear and integer programming. Spreadsheet modeling (EXCEL) is used for solving these problems. Throughout the course practical examples are provided and issues faced by the managers are discussed so that students will have a good grasp of the real world managerial decision-making environment.

Course Learning Outcomes:

The learning outcomes for this course, listed below, relate to the learning goals (LG's) of the College of Business Administration Undergraduate Program, which can be found in the appendix at the end of this syllabus. The numbers in parenthesis indicate the specific learning goal the outcome relates to. Upon successful completion of the course, students will be able to:

1. **Understand and uphold ethical standards and business acumen** both as a student and future business professional. (LG1)
2. **Think critically** about the processes, services and products of everyday life, considering their sub-components and about their supply chain and operations implications. (LG5)
3. **Propose solution approaches** to business opportunities by breaking them down into components and identifying the appropriate analytical tools and models to use. (LG2, LG3)
4. **Communicate concepts in a professional setting**, raise important questions, and provide intelligent assumptions and suggestions when there is no clear answer. (LG4)

COURSE OUTLINE

Always check MS Team for the latest updates and deadline dates.

Week of	Topic	Important Due Dates
Feb 01	Introduction to Operations Research	
Feb 08	Chapter 1 Modeling & Break-Even Analysis	
Feb 15	Chapter 2 Intro to LP - Formulation	
Feb 22	Chapter 2 Solving LP with Graphs	
Mar 01	Chapter 2 Solving LP with Excel	
Mar 08	Chapter 3 – Sensitivity Analysis	Quiz 1
Mar 15	Chapter 3 – Sensitivity Examples	
Mar 22	Chapter 4 – Diet Problem, Scheduling Problem	
Mar 29	Chapter 4 – Investment, Blend	
Apr 05	Chapter 5 – Integer Programming	Quiz 2
Apr 12	Chapter 5 – IP Examples	
Apr 19	Chapter 6 – Network & Assignment Models	
Apr 26	Chapter 6 – Transportation & Routing Problems	
May 03	Final Exam Review	Quiz 3
May12	Final - Tuesday May 12, 12pm to 2pm	Final Exam

GRADING AND COURSE REQUIREMENTS

Weight	Category	Description
20%	Classwork	8-10 assignments throughout the course
40%	Quizzes	3 quizzes throughout the semester 15% of your final grade each.
40%	Final Exam	Final exam will be 40 to 60 multiple choice or similar questions.
100%		

Grade Distribution:

Grade	Range
A	≥ 94
A-	≥ 90 and < 93.99
B+	≥ 87 and < 89.99
B	≥ 83 and < 86.99
B-	≥ 80 and < 82.99
C+	≥ 77 and < 79.99
C	≥ 73 and < 76.99
C-	≥ 70 and < 72.99
D+	≥ 65 and < 69.99
D	≥ 60 and < 64.99
F	< 60

- These **cut-offs are firm** (i.e. a 79.999% is a C+ and NOT a B-).
- Exams will be curved only if necessary, and if this is the case, the curve will be fairly and equally applied to all students. Please do not come ask me to magically turn a 71% into a C or C+.
- **No extra credit assignments** will be provided, as the current structure incorporates a good amount slack so that students can do well even if they miss a few things. Extra credit assignments are not fair for the students who have worked hard throughout the semester.

ASSIGNMENTS & QUIZZES

In-Class Assignments will be assigned during some classes to be completed and submitted by the *end of the class period*. These will generally be Excel-based exercises from the chapter at hand. **Students MUST bring laptops in class to work on the problems.**

Homework is to be done INDIVIDUALLY WITHOUT AI Tools. Any sign of copying from other students is considered cheating as per Kuwait University rules and regulations and will be given a 0. Repeat offenders will fail the class. If you need help, seek it from the professor (via office hours, email, appointment) or from the TA.

Quizzes will be given after each of the course modules, usually in the following week. There is a total of 3 quizzes. The quizzes are a mix of multiple choice and short answer questions.

ATTENDANCE & CLASS PARTICIATION

Laptops are required, especially for days with in-class assignments. Use of laptops on other days is also encouraged, if it does not distract other students or the instructor, and the student is able to respond to questions when called upon by the instructor.

Attendance is mandatory. It is not graded but can result in an FA grade. After three absences, the student received his 1st warning. After another 3, they receive a final warning. Any absences after that leads to FA grade. Late attendance or leaving early counts as a half absence. You must come to class prepared to take notes and participate, this includes bringing a notebook and/or tablet to take notes.

You are not allowed to take pictures during class. You need to take your own notes, either on your laptop, or in a notebook.

Every student in this course must also abide by the KU Policy on Attendance (published in the Student Guide, Chapter 3, Section 13). A copy of the student guide can be accessed online on:

http://www.kuniv.edu/cs/groups/ku/documents/ku_content/kuw055940.pdf

CHEATING & PLAIGARISM

I take cheating very seriously. If I catch you cheating, I will make sure you suffer the full consequences of your decision to cheat. Cheating includes (but not limited to): using unauthorized notes during the examination, using unauthorized devices during the examination, communicating with anyone besides instructor or exam proctor, looking at another student's work during the examination, and copying another student's homework.

Every student in this course must abide by the Kuwait University Policy on Cheating and Plagiarism (published in the Student Guide, Chapter 3, Section 2). A copy of the student guide can be accessed online on: http://www.kuniv.edu/cs/groups/ku/documents/ku_content/kuw055940.pdf