

Quantitative Business Analysis MGT 826*01 Kelce 203 3:30 – 4:45 pm TTH, Fall 2022

Instructor: Choong Y. Lee **Office:** 110 F Kelce

Hours: 11:00 am - 1:00 pm, 2:00 - 3:30 pm TTH, or by appointment

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Textbook

(1) Anderson, Sweeny, and Williams, Quantitative Methods for Business, 13th ed.; Cengage, 2016. (ISBN: 978-1-285-86631-4)

Insert graphic image of textbook cover

(2) Duplication of PowerPoint Slides as Learning Modules (This is available from Canvas.)

Catalog Course Description

Tools of managerial economics, decision making under uncertainty, forecasting, regression analysis, and linear programming. Technological issues such as computers and information technologies, and manufacturing technologies are discussed with case examples.

Prerequisites

MGMKT 320: Business Statistics, ECON 805: Economic Analysis, or waivers

Course Objectives / Learning Outcomes

The primary objectives of the course are for each student to:

- 1) develop analytical problem solving skills;
- 2) develop critical thinking skills;
- 3) become acquainted with problem solving techniques;
- 4) utilize various computerized methods of solving business problems; and
- 5) be able to solve business problems using techniques of linear programming, regression analysis, decision tree analysis, PERT/CPM, and other quantitative tools.

Course Outline

Module	Textbook Chapter	<u>Topic</u>
Module 1	1	Introduction
Module 2	2	Introduction to Probability
Module 3	3	Probability Distribution



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Module 4	4	Decision Analysis
Module 5	4	Decision Analysis
Module 6	6	Forecasting
Module 7	6	Forecasting
Module 8	6	Forecasting
Module 9	7 & 8	LP (Linear Programming) Models (I)
Module 10	7 & 8	LP (Linear Programming) Models (II)
Module 11	9 & 10	Distribution System Models (I)
Module 12	9 & 10	Distribution System Models (II)
Module 13	11	Integer Programming Models (I)
Module 14	11	Integer Programming Models (II)

The above schedule is only <u>a guide</u>. <u>The instructor reserves the right to make any necessary</u> as the semester progresses.

Teaching Methods

In addition to the textbook, there will be given a set of PowerPoint slides through Canvas as the class lecture note, called the module, to help each student understand the assigned subject(s). The students are required to read the associated chapter of the textbook as well as the supplement lecture note uploaded and try homework assignments by himself or herself individually and independently. This course requires usage of the LINDO and MINITAB software package accessible on the PC. Both LINDO and MINITAB are available in the Kelce Computing Lab. In addition, since the free version of <u>LINDO</u> software package accessible on the PC is available from its website, <u>www.lindo.com</u>, students may download a PC version of "Classic Lindo" from the website (<u>No Mac version is available</u>). Students are encouraged to plan their activities to ensure that computer practices/assignments can be completed in a timely manner.

Course Participation

Students are strongly urged to make their best attempts to actively engage themselves in learning. As we know, quantitative courses require each student's **voluntary devotion**: This class is a **learning-by-doing** model. If you don't actively engage in learning in the course, you may not learn anything. Usually, there is a direct correlation between class participation and performance on exams. During the entire semester, you are supposed to work diligently in all required work, and you and you alone are responsible for any announcements and lectures given during the entire period of the course. The class participation with your voluntary devotion is a key for the successful completion of the class with a high mark.

Attendance Policy

Students are strongly urged to make their best attempts to attend all classes. Usually, there is a direct correlation between class attendance and performance on exams. When absent from a



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class, you and you alone are responsible for any announcements and lectures given during the class. Late submission of assignments is <u>not</u> acceptable. Attendance will be checked during the semester and considered for the final letter grade. The class attendance is critical especially in the event the student is on the borderline between two grades when the final letter grade is determined at the end of the semester.

Course Communication Policy

Although most of communication will take place in the class, <u>Canvas Inbox</u> or <u>email</u> may be used effectively since the instructor usually checks them frequently. You may expect to receive a reply to your question(s) within 24 hours, Monday through Friday, unless otherwise posted by the instructor. Also, you may visit or call the instructor's office during the regular office hours to talk to the instructor.

Course Communication Guidelines (Netiquette)

Netiquette is a set of rules for behaving properly online. Some of our communication in this course will take place through Canvas or email. Here are the requirements for online communication in this course. Behavior and communication that do not meet these guidelines will not be tolerated.

- Be sensitive to different cultural and linguistic backgrounds, as well as different political and religious beliefs.
- Use good taste when composing your responses. Swearing and profanity should be avoided. Also consider that slang terms can be misunderstood or misinterpreted.
- Don't use all capital letters when composing your responses. This considered "shouting" on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message.
- Be respectful of others' views and opinions. Avoid "flaming" (publicly attacking or insulting) others.
- Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message.
- Use good grammar and spelling, and avoid using text messaging shortcuts.
- In emails, always identify yourself and what class and section you are in. It is a good practice to put your course and section in the subject line. This helps your instructor identify course related emails.



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In addition, specifically, there are rules needed to maintain high quality class in professional manners. Please use the following rules of netiquette as you post to online discussions and send messages to your instructor and fellow students in the course:

- 1. Use **professional language**. Always say please and thank you and leave text messaging abbreviations out of messages and posts. Be positive and constructive in your feedback to replies to students.
- 2. **Try not to use all caps**--it comes across as shouting to the reader. Use "**bold**" formatting or use quotes to emphasize a word or phrase. It may be okay at times for headings or to place emphasis on a web page, but try to avoid it when communicating on discussion boards or corresponding with others electronically.
- 3. User **proper language and titles**--no slang or profanity. Even if a word is one you consider to be "not so bad", it could be offensive to others.
- 4. **Review posts and messages before saving**. Check for grammar and spelling errors and restate your message when necessary.
- 5. **Ask for clarification.** If you do not understand an assignment or feedback from me, please ask for clarification. I will do my best to word my posts/messages as clearly as possible, but in an online environment, I cannot "see" if my messages are being understood.

**** If proper Netiquette is not followed, you may lose points on your performance.

Computer/Technology Requirements

All students will need regular access to a personal computer that runs on a broadband Internet connection. Also, in case, they may need to have a webcam if a camera is not included in their computer or smart device. More specifically, each student needs:

- 1. <u>High-speed internet access</u> is required. Make sure to have a back-up plan if your primary access is not available.
- 2. <u>A computer</u> to access Canvas and complete assignments. Mobile devices are not normally recommended for submitting assignments and taking Canvas quizzes and exam. See the Canvas Privacy Policy and Canvas Accessibility Statement.
- 3. A current version of an <u>Internet Browser</u>, preferably Google Chrome or Mozilla Firefox. See the Canvas Guides for the latest browser and plug-in requirements.



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Academic Integrity

All Pitt State students are bound by the academic integrity policies of the university as described and outlined in the current Syllabus Supplement. Please familiarize yourself with these rules and guidelines. In addition, as a course offered through the Kelce College of Business, students in this class are obligated to adhere to the college's Student Code of Ethics as outlined below. Students shall:

- Refrain from class disturbances.
- Arrive on time and remain until dismissed at all class sessions and to notify instructors in advance of anticipated absences, late arrivals, or early departures whenever possible.
- Turn off cell phones or other electronic devices while in class, unless permission to use them has been granted.
- Prepare for and participate in all classes.
- Treat fellow students, staff, faculty and administrators with respect.
- Prepare assignments and exams honestly.
- Avoid plagiarism or unacknowledged appropriation of another's work in any academic work.
- Refrain from giving or receiving inappropriate assistance.
- Dress appropriately, avoiding clothing that is revealing, provocative, or includes offensive language or visuals. Dress as a professional when appropriate at ceremonies and interviews.
- Respect University property and use resources in the most effective and efficient manner.
- Be fair and constructive in the evaluation of faculty.
- Obey the policies, regulations, and laws of the United States of America, The State of Kansas, The Kansas Board of Regents, Pittsburg State University and the Gladys A. Kelce College of Business.

The instructor will administer a <u>course grade</u> of "F" to any student who chooses to partake in dishonest conduct with regards to <u>any</u> exam, quiz, or assignment.

Students with Disabilities

Please inform the instructor if you have a learning or physical disability that interferes with course requirements. Assistance and/or appropriate accommodations may be available through the contacts listed on the current Syllabus Supplement.

Students seeking assistance with academic programs because of a <u>physical</u> disability (such as visual or hearing problems, mobility issues, etc.) should contact Cindy Johnson, Director, Equal Opportunity/ Affirmative Action in the Equal Opportunity Office, 218 Russ Hall (235-4185) in order to request accommodation. Students seeking assistance with academic programs because of <u>learning</u>, <u>mental</u>, <u>or emotional disabilities</u> should see Tami Hennigh, Coordinator, Center for



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Student Accommodations, 218 Russ Hall (235-6584). If a student has both physical and mental disabilities, the student may see either Cindy Johnson or Tami Hennigh and they will work together on providing accommodations. Please inform the instructor if you have a disability that the instructor should know about.

Course Evaluation Methods

Problems:

A student can most easily learn the material and test his/her understanding by working problems. Accordingly, problems will be assigned <u>normally for self-study</u>, but should be collected for checking your work. In other words, although exercise problems will be assigned normally from the textbook or the modules for your learning through practicing problems by yourself, they should be all <u>required</u> homework problems to be <u>collected for grading</u>. For the homework problems requiring computer solutions, you should turn in the homework solutions along with the associated computer output and its necessary interpretation on it. <u>Late submission of homework problems will normally not be accepted for credit</u>. Sample examples will be provided in the modules.

Homework is to be done on the regular 8 1/2 by 11 paper. You may not submit homework on paper torn from a spiral binder. For computer solution problems, you may turn the problem in on the computer output with the necessary interpretation. Homework is to be stapled together with your name and the due date in the upper right hand corner of the front page. Each page is to be numbered in the upper right hand corner.

Cases:

There will be required cases and projects to be analyzed using those tools and methods learned in the class. All cases and projects will be collected and graded. More detailed information regarding cases and projects will be given later.

All homework assignments, cases and projects will be individual ones. In other words, even though you may discuss them with your classmates to make sure you understand them correctly, each of you must do them <u>individually</u> and <u>independently</u> from others. The instructor will administer <u>a course grade of</u> "F" to any student who chooses to partake in <u>dishonest conduct</u> with regards to any homework, case or project.

Exams:

Three exams, two mid-term exams and a comprehensive final, will be scheduled and given <u>online</u>. All will be <u>problem-solving</u> oriented. It means that there will be <u>no</u> multiple choices <u>nor</u> true/false questions in your exams. Also, all three exams will be <u>individual tests</u>. It means that <u>each student must do every exam</u> <u>by himself/herself without any discussion or talk with others</u>. There will be no exception at all for any test or exam for this class. The instructor will administer



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<u>a course grade of "F"</u> to any student who chooses to partake in <u>dishonest</u> <u>conduct</u> with regards to any test or exam.

All exams, including the comprehensive final, will be given **online through Canvas** for students' convenience with freedom and flexibility. Each exam, which is typically a 2-hour exam, will be given in a 5-hour window on the following days:

Exam 1: September 27, Tuesday Exam 2: November 1, Tuesday Final Exam: December 13, Tuesday

You could start your exam any time during the <u>5-hour window</u>, 3:30 – 8:30 pm on the exam day, but must finish it within <u>two (2) hours</u> (120 minutes) each time. It means that you have to start your exam <u>no later than 6:30 pm</u> each time to finish it by 8:300 pm on the exam day.

Grading:

The letter grade you earn in this course will be determined by the total points you earn on homework, exams, case problems, and projects through the semester. The distribution of points is provided below:

Categories	Points
Exam 1	100
Exam 2	100
Final Exam (Comprehensive)	150
Homework, Case Analysis, and Class Attendance	450
Total	800

The final letter grade in the course will be determined by the total points you earn through the semester. The basic guideline is as follows:

90% or above of the	e <u>highest</u> (<u>not</u> the	possible point):	Α
80% or above	••	:	В
70% or above	"	:	C
60% or above	"	:	D
below 60%	"	•	F

Using the above <u>modified</u> curve (not traditional straight curve), more students could get a **better or higher** letter grade for the course.



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More additional adjustments could be made in order to encourage students to work hard. For example, **lowering** the above cutoff points could give more **favorable** final grades to all hard-working students.

How to Take Exams (how to start and upload exam/test files)

Due to the nature of all exams in this course, which is a quantitative course, all exam questions will be problem-solving without multiple choices nor true/false questions. Under the current teaching/learning resources we have, the best way to have exams and tests in this class is to send exams in a MS-Word or PDF document to each student through Canvas. When a student clicks on the exam in Canvas and starts it, a link to the exam will be shown. Students can download the test file and file out the pdf on the computer, but we recommend printing out the test and filling out the test with a pencil. Before the test timer runs down, submit your test through the file upload on the exam. The best way to do this is to either take pictures of your exam with a smart phone or similar devices and copy them into a Word or PDF document or scan all of them back to the computer and submit that combined file back to the instructor through Canvas or email. If any technical issues happen, you may send your exam/test to your instructor, whose email address is cylee@pittstate.edu, through email.

Other Policies

You are invited to ask questions or make comments in class about the topic to which the particular session of the class is devoted or about other related topics.

When you have a question about the operation of the course, need extra help on a topic, or simply would like to discuss a topic further, you are invited to visit my office. It is my pleasure to help you outside the classroom in case you need and want such help.

Note

The instructor reserves the right to amend and to reorganize this syllabus at any time,

especially when we are asked or required to adjust class settings or other related items to unexpected interruptions or changes due to the pandemic or a similar situation during the semester.