

OPRE 3333: Quantitative Business Analysis
University of Texas at Dallas
Spring 2019

Course Syllabus

Disclaimer

The material contained in this syllabus is subject to change upon announcement by the instructor in class.

Course Information

Course Number:	OPRE 3333.501
Course Title:	Quantitative Business Analysis
Term:	Spring 2019
Days and Time:	Thursday, 7:00 PM - 9:45 PM, JSOM 1.110
Instructor:	Katie Ahadi, Ph.D.
Office:	JSOM 3.409
Office Hours:	Tuesday, 1:00 PM – 3:00 PM Wednesday, 1:00 PM – 3:00 PM
Email:	kahadi@utdallas.edu
Phone:	972-883-6719
TA:	Manojraj Ravindran
TA Email:	mrx180030@utdallas.edu
TA Office Hours:	TBA
TA office Number:	Lab 2.414

Course Pre-requisites, Co-requisites and/or Other Restrictions

MATH 1325 or MATH 2413 or MATH 2417

Course Description

Provides students with the analytical tools necessary for making better management decisions. Students are introduced to mathematical techniques used to make different types of business decisions.

Learning Outcomes

Students are required to take the initiative to learn, understand and apply quantitative business analytic to real world business data. At the end of this course, you should:

- Be able to apply mathematical techniques of optimization and linear algebra
- Be able to effectively understand and interpret analytic models and use them in the decision making process
- Be able to utilize basic business analytic tools in Excel

Textbooks:

1. Elementary Linear Algebra (8th edition) - Larson
2. Essentials of Business Analytics (2nd edition) Camm/Fry/Anderson/Sweeney/Williams

You have two options to purchase the textbook:

1. Through UTD Bookstore
2. Through Cengage.

Software: Microsoft Office Excel

This course uses a laptop, eLearning, Internet access, Microsoft Excel 2007 or higher (no trial versions), Data Analysis Activated (this comes with Excel). If you are using a Mac, it is recommended to install a Windows Virtual machine, such as Parallel Desktop, or VMWare Fusion 4 which will then allow the use of Windows within the Mac Operating System.

The Statistics and Math lab offers assistance to undergraduate students for OPRE 3333 and OPRE 3360. The schedule is 10am-6pm Monday to Friday and it is located in room 2.414.

Course Notes/Handouts

A portion of course material will be presented through course notes and handouts. It is each student's responsibility to take appropriate notes during lecture. If a student misses a lecture for any reason, it is his/her responsibility to obtain notes from a classmate.

Communication

UTD eLearning is used to disseminate the materials for this course. Students can visit <https://elearning.utdallas.edu> and login using their net ID and password. Upon successful login, the Quantitative Business Analysis webpage should be available. Presentation slides, handouts, data files, and review questions will be available on this webpage. The instructor expects students to keep up with these materials. It is each student's responsibility to check the website before each class and bring that day's lecture, examples, and homework materials to lecture. The instructor will also post helpful links to supplementary content that may be helpful in learning the required material. Students who have questions should make every attempt to consult the instructor and TA during office hours. When this is not possible, the student should email the instructor and TA with a description of the question.

Quizzes

1. There is a quiz at the end of almost every chapter.
2. The quiz will cover chapters taught previous weeks. This means you are expected to attend every class, carefully follow the lectures, and actively participate in discussions.
3. The **two quizzes** with the lowest grades will be dropped.
4. Please be advised, there is no need to provide any documents (like doctor note) or justifications or emails to me in case of absence. You may miss two quizzes and still no points will be deducted from your overall grades. This means there will be **no make-up (no justifications) for a missed class under any circumstances**. This is a policy with no exception, so PLEASE do not ask to reschedule a quiz/for a make-up quiz when you miss any class. I will not violate the course policy.
5. I strongly advise you do not skip classes/quizzes and keep the two chances for unexpected circumstances.
6. Quizzes will **NOT** be returned to students. However, you have one week, after grades are posted on eLearning, to check your graded quiz in TA's office hours and have the TA's feedback. When this is not possible, the student should email the TA to schedule another time.
7. To challenge a quiz grade, a student must email the instructor with a description of the grading error.
8. Graphing calculators are **NOT** allowed for the quizzes.

Exams

1. Three tests are given during the semester.
2. Tests are not cumulative.
3. Tests will **NOT** be returned to students. However, you have one week, after grades are posted on eLearning, to check your graded test in the instructor's office hours and have the instructor's feedback. When this is not possible, the student should email the instructor to schedule another time.
4. To challenge a test grade, a student must email the instructor with a description of the grading error.
5. Graphing calculators are **NOT** allowed for the tests.

Course Policy

1. The quizzes will be taken in class. You will need to have a **laptop**.
2. Announcements/changes will be through the eLearning. It is your responsibility to check it at least once a day.
3. If you missed a class, then please ask your classmates about what was covered in class.
4. There will be NO make-up exam except for extenuating circumstances with prior permission only. In such circumstances, student will be required to provide justifying documents.
5. There will be NO extra credit in this course under any circumstances.
6. Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:
 - Zero for the Quizzes
 - F for the course

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

As a Comet, I pledge honesty, integrity, and service in all that I do.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of course syllabus. Please go to <https://go.utdallas.edu/syllabus-policies> for these policies.

Grading

Grades are assigned based upon the following scale and weighting.

Quiz	25%
Exam 1	25%
Exam 2	25%
Exam 3	25%

97-100	A ⁺	87-89.99	B ⁺	77-79.99	C ⁺	67-69.99	D ⁺
93-96.99	A	83-86.99	B	73-76.99	C	63-66.99	D
90-92.99	A ⁻	80-82.99	B ⁻	70-72.99	C ⁻	60-62.99	D ⁻

Once a graded item has been returned, a student has 48 hours to challenge the grade. To challenge a grade, a student must submit a typed description of the grading error to the grader (tests: instructor). This description must include the students name and e-mail address. The grader responds to a challenge within 48 hours of its receipt.

The following is a tentative schedule, which will be followed as closely as possible. However, should any changes become necessary, it will be announced in the class or via Blackboard. It is your responsibility to keep track of announcements regarding changes to this schedule.

Course Calendar

Week	Date	Topic	Book	Quiz
1	Thursday, January 17	System of Linear Equations	Chapter 1 - Larson	
2	Thursday, January 24	System of Linear Equations & Matrices	Chapter 1 & 2 - Larson	
3	Thursday, January 31	Matrices	Chapter 2 - Larson	Quiz 1 (Ch 1)
4	Thursday, February 7	Determinants	Chapter 3 - Larson	Quiz 2 (Ch 2)
5	Thursday, February 14	Determinants	Chapter 3 - Larson	Quiz 3 (Ch 3)
6	Thursday, February 21	Introduction to Business Analytics & Data Visualization	Chapter 1 & 3 - Camm	
7	Thursday, February 28	Exam 1	Chapter 1,2, and 3 (Larson)	
8	Thursday, March 7	Data Visualization & Time Series Analysis and Forecasting	Chapter 3 & 8 - Camm	
9	Thursday, March 14	Time Series Analysis and Forecasting	Chapter 8 - Camm	Quiz 4 (Ch 1 & 3- Camm)
10	Thursday, March 21	Spring break		
11	Thursday, March 28	Linear Optimization Models	Chapter 11 - Camm	Quiz 5 (Ch 8- Camm)
12	Thursday, April 4	Exam 2	Chapter 1,3, and 8 (Camm)	
13	Thursday, April 11	Linear Optimization Models	Chapter 11 - Camm	
15	Thursday, April 18	Integer Linear Optimization Models	Chapter 12 - Camm	Quiz 6 (Ch 11- Camm)
16	Thursday, April 25	Integer Linear Optimization Models	Chapter 12 - Camm	Quiz 7 (Ch 12- Camm)
17	Thursday, May 3	Exam 3	Chapter 11, 12 (Camm)	