

Course Syllabus

Course Information

Course Number/Section: **OPRE 3333.006**
Course Title: **Quantitative Business Analysis**
Term: **Spring 2026**
Day & Time: **Online**

| | | | |
|----------------------|--|----------------------|--|
| Instructor: | Katie Ahadi, PhD | TA: | Anh Tran |
| Office Hours: | Mo/Wed 12:00 PM – 1:00 PM | Office Hours: | TBA |
| Email: | kahadi@utdallas.edu | Email: | Anh.Tran@UTDallas.edu |

The office hours will be held on MS Teams: [Office Hours: OPRE 3333- Spring 26](#)

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.

Students Learning Outcomes

Students are required to take the initiative to learn, understand, and apply quantitative business analytics 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 analytics tools in Excel.

This course focuses on the concepts of linear algebra and business analytics. While Excel will be used as a computational tool to perform calculations and visualize data, the main objective is not to learn Excel itself. Instead, the emphasis is on understanding the underlying mathematical concepts and analytical techniques that drive decision-making in business contexts. Students interested in further developing their Excel skills are encouraged to explore courses such as OPRE 4350 and ITSS 3300, which provide training in Excel and related tools.

Textbooks and Materials

1. [Elementary Linear Algebra \(8th edition\) - Larson](#)
2. [Business Analytics \(4th edition\) Camm/Cochran/Fry/Ohlmann](#)
3. Course handouts: Available via eLearning (see below).

You may purchase the textbook from the UTD bookstore, Cengage publisher, or Amazon.

Software: Microsoft Office Excel

This course uses a laptop, eLearning, Internet access, Microsoft Excel 2007 or higher (no trial versions), Microsoft Excel 2016 or later (no trial version) for an Apple/Macintosh computer, and the Microsoft Excel software package called Data Analysis and Solver, which are Add-ins that come with Excel.

Instructor Resources

[Registrar's Intranet](#): please log in with your UTD NetID and password to access this site. Information that faculty need about grading, scheduling, and other essential aspects of our responsibilities related to teaching are made available and updated regularly in the Registrar's Intranet. This source of information can only be accessed by logging in with your UTD NetID and password. Many important faculty questions are answered here, and this is information that faculty members are expected to know and understand.

[FERPA Guidelines](#): you will be asked to log in before you access the FERPA Faculty Guidelines webpage on the Registrar's Intranet. If faculty have additional questions about FERPA guidance, please [email](#) the Office of the Registrar for the proper student consent forms and further instructions. NOTE: Class recordings from prior semesters may be used as long there are no identifiable student information due to [FERPA](#) because instructors will need students' written consent first. Please review your previous class recordings for identifiable student information before using them in the current term. For additional guidance, contact the [Office of the Registrar](#).

[Honorlock](#): Online proctoring tool will be available for fully online courses and for classes with enrolled international students who are not yet in the United States.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the [Getting Started with eLearning](#) webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the [eLearning](#) website.

Please see the course access and navigation section of the [Getting Started with eLearning](#) webpage for more information.

To become familiar with the eLearning tool, please see the [Student eLearning Tutorials](#) webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The [eLearning Support Center](#) includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools, such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the [Student eLearning Tutorials](#) webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The AccessAbility Resource Center, and many others. Please see the [eLearning Current Students](#) webpage for more information.

Academic Calendar

| Week-Date | Chapter / Lecture | Assignment / Exam |
|----------------------------|--|--|
| | Module 1 | |
| Week 1 Jan 20 – Jan 23 | Chapter 1 - System of Linear Equations (Larson) | |
| Week 2 Jan 26 – Jan 30 | Chapter 1 - System of Linear Equations (Larson) Chapter 2 - Matrices (Larson) | HW 0: Syllabus |
| Week 3 Feb 2 – Feb 6 | Chapter 2 - Matrices (Larson) | HW 1: Chapter 1 |
| Week 4 Feb 9 – Feb 13 | Chapter 3 - Determinants (Larson) | HW 2: Chapter 2 |
| Week 5 Feb 16 – Feb 20 | Chapter 3 - Determinants (Larson) | HW 3: Chapters 3 |
| Week 6 Feb 23 – Feb 27 | No Material (Exam 1) | Exam 1 – Chapters 1-3 Saturday, Feb 28 |
| | Module 2 | |
| Week 7 Mar 2 – Mar 6 | Chapter 1 - Introduction to Business Analytics (Camm) Chapter 8 - Time Series Analysis and Forecasting (Camm) | |
| Week 8 Mar 9 – Mar 13 | Chapter 8 - Time Series Analysis and Forecasting (Camm) | HW 4: Chapters 1,8 (Camm) |
| Week 9 Mar 16 – Mar 20 | No Class- Spring Break ☺ | |
| Week 10 Mar 23 – Mar 27 | No Material (Exam 2) | Exam 2 – Chapters 1, 8 Saturday, March 28 |
| | Module 3 | |
| Week 11 Mar 30 – Apr 3 | Chapter 11 - Linear Optimization Models (Camm) | |
| Week 12 Apr 6 – Apr 10 | Chapter 11 - Linear Optimization Models (Camm) | HW 5: Chapters 11 (Camm) |
| Week 13 Apr 13 – Apr 17 | Chapter 12 - Integer Linear Optimization (Camm) | |
| Week 14 Apr 20 – Apr 24 | Chapter 13 - Nonlinear Optimization Models (Camm) | HW 6: Chapters 12-13 (Camm) |
| Week 15 Apr 27 – May 1 | Chapter 15 – Decision Analysis | HW 7: Chapter 15 (Camm) |
| Week 16 May 4 – May 8 | No Material (Exam 3) | Exam 3 – Chapters 11-13 Saturday, May 9 |

Summary of Course Grading

| Graded Components | % Contribution |
|------------------------------------|--|
| Exam #1 | 30% |
| Exam #2 | 20% |
| Exam #3 | 30% |
| Average of Assignments | 20% |
| Extra Credit – Assignment 0 | <i>Up to 5 additional points will be added to the average assignment score based on performance on Assignment 0. Extra credit does not count toward the 100% course total.</i> |
| Course Total | 100% |

Grading Policy

| A+ | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | F |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 97– 100% | 93– 96.9% | 90– 92.9% | 87– 89.9% | 83– 86.9% | 80– 82.9% | 77– 79.9% | 73– 76.9% | 70– 72.9% | 67– 69.9% | 63– 66.9% | 60– 62.9% | Below 60% |

Exams

1. **All three Exams are online** and will be held via the eLearning system.
2. All three exams are timed, ranging from 90 to 120 minutes, and consist of 30 to 40 multiple-choice or fill-in-the-blank questions.
3. This course will use [Honorlock](#) – an online exam proctoring tool. To successfully take an exam, you must have a web camera with a microphone, a laptop or desktop computer (no tablets/phones), a Chrome browser, a reliable internet connection, and your photo ID. You will be prompted to install the Honorlock Chrome Extension (which you can remove after you finish the test). You will then access the exam within your eLearning course and go through the authentication process. The web camera will monitor you throughout your test. Please see the [Testing Guidelines](#) and [Support Information](#) for additional information.
4. There will be **NO make-up/rescheduling exams** except for medical emergencies (a written statement justifying the situation from a physician is required). The written statement should include the physician's (not a physician assistant) address and phone number for verification purposes. Scheduling a surgery/operation on an exam date is not considered a medical emergency!
5. Test results will **NOT** be available for the students. However, you have **one week**, after grades are posted on eLearning, to set an appointment with the TA and check your test.

Homework Assignments

1. There are 7 homework assignments (numbered 1 to 7) throughout the semester.
2. HW 0 covers the course syllabus and is an extra credit opportunity worth 5 points. These points will be added to the average of your HW assignments at the end of the semester. It consists of 20 multiple-choice questions and has a 30-minute time limit for completion.
3. **All the assignments are online** and will be held via the eLearning system.
4. Homework assignments are to be submitted individually online via eLearning.
5. The assignments are available **Monday at 8 AM and due on Sunday at 11:59 PM**.
6. The solutions to the homework will be provided after the due date; therefore, **no late submission will be accepted**.
7. Any concern regarding the grading of homework assignments should be addressed directly to the TA and not to the instructor, no later than one week after the graded assignment is returned.
 - General questions regarding HW must be posted on the course **Discussion Board**.

Course Policies

1. It is your responsibility to read the syllabus and check the eLearning for announcements/changes daily.
2. You **MUST** communicate with me or the TA via **your UTD email account** only (for privacy and FERPA purposes). Emails from a personal account (e.g., Gmail, Yahoo, etc.), will not be answered.
3. Please ensure e-mail messages **include the course name and section number** in the subject line.
4. Please ensure that you cc your TA on every email you send to me.
5. **You must pay close attention to all the due dates** from the first day of class and schedule your personal activities around those dates. Never purchase a plane ticket (no matter how cheap it is) before the posted final “Exam Week” (review the UTD calendar for specific dates).
6. Any type of discussion about questions and answers on assignments/tests, including those held on social media platforms and other electronic chat groups, may be considered **cheating**.

Important Note: If any adjustments to final grades are necessary, they will be determined based on the performance of the class. Unless there is an error in grading the final exam, letter grades are **FINAL**. Extra credit will **NOT** be offered for any graded portions of this course. Any emails requesting extra credit won't be replied to by the instructor or the TA.

Class Participation

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Note: the instructor may choose to include one or neither of the following statements:

- (a) Texas Senate Bill 17, the recent law that prohibits diversity, equity, and inclusion programs and activities at public universities in Texas, does not in any way apply to academic course instruction. Students should

not feel the need to self-censor or limit their participation in academic courses pertaining to topics of race and racism, structural inequality, LGBTQ+ issues, or diversity, equity, and inclusion, and related topics.

- (b) Texas Senate Bill 17, the recent law that prohibits diversity, equity, and inclusion programs and activities at public universities in Texas, does not in any way apply to academic course instruction.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the AccessAbility Resource Center has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved AccessAbility Resource Center accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

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.”

Accommodations for Students with Disabilities

Please review [the section](#) within the UT Dallas Syllabus Policies and Procedures webpage.

Academic Support Resources

Please visit the [Academic Support Resources](#) page to view the University’s academic support resources for all students.

UT Dallas Syllabus Policies and Procedures

Please visit the [Syllabus Policies](#) page to view the University’s policies and procedures segment of the course syllabus.

Please review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.