

## OPRE3333.501– FALL 2015

**Course** : OPRE3333.501  
**Title** : Quantitative Business Analysis  
**Term** : FALL 2015

**Professor:** Levent Kaan, Ph.D. - [Levent.Kaan@utdallas.edu](mailto:Levent.Kaan@utdallas.edu)

<b>Office</b>	: SOM 2.409	<b>Class Meetings</b>	: TUE-THU
<b>Office Hrs</b>	: As Required	<b>Class Hrs</b>	: 5:30 PM- 6:45 PM
<b>Text Message</b>	: 214-755-1439	<b>Location</b>	: UTD Dallas Main Campus- JSOM 11.210

**Teaching Assistant** : NA

**Textbook:** Introduction to Data Analysis, Camm/Fry/Anderson/Sweeney/Williams, 1<sup>st</sup> Edition. | ISBN13: 978-1-305-02408-3 | ISBN 10: 1-305-02408-7 | UT Dallas Custom 1<sup>st</sup> Edition

Textbook was designed by combining Elementary Linear Algebra | 7<sup>th</sup> Edition & Essentials of Business Analytics | Camm/Cochran/Fry/Ohlmann/Anderson/Sweeney/Williams | 1<sup>st</sup> Edition

### Prerequisites

One of the following should be completed: MATH 1325 Applied Calculus I / MATH 2413 Differential Calculus / MATH 2417 Calculus I

### Course Description

This course introduces the concept of business processes problem solving utilizing quantitative techniques including matrices, data analysis, and time series. Linear, nonlinear, and integer type problems will be evaluated. As a result of this course students are expected to solve various business type problems utilizing quantitative techniques and make decisions based on the validated results.

### Student Learning Objectives / Outcomes

A student successfully completing this course is expected to know how to utilize quantitative methods to approach a problem, solve, and validate to make sound business decisions. Student is expected to learn and use Microsoft EXCEL with add-ins like solver, data analysis toolpak, and similar software (lindo, lingo, ampl etc.) as needed

Days	Topics
Aug 24 & 26	Elementary Linear Algebra - Chapter 1: System of Linear Equations Elementary Linear Algebra - Chapter 2: Matrices
Sept 1 & 3	Elementary Linear Algebra - Chapter 3: Determinants & Exam review <b>HW 1 due</b> <b>EXAM 1 – Closed Book – 8 ½ x 11 Cheat Sheet allowed</b>
Sept 8 & 10	Essentials of Business Analytics - Chapter 1 & 3: Introduction & Data Visualization <b>Course Documents Online Delivery</b>
Sept 15 & 17	Essentials of Business Analytics - Chapter 5: Time Series Analysis and Forecasting <b>No</b> <b>Course Documents Online Delivery</b>
Sept 22 & 24	Essentials of Business Analytics - Chapter 8: Linear Optimization Models <b>HW 2 due</b>
Sept 29 & Oct 1	Essentials of Business Analytics - Chapter 8: Linear Optimization Models <b>Problem Solving Session</b>

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Oct 6 & 8	Essentials of Business Analytics - Chapter 9: Integer Linear Optimization <b>HW 3 due</b>
Oct 13 & 15	Essentials of Business Analytics - Chapter 9: Integer Linear Optimization <b>Problem Solving Session</b>
Oct 20 & 22	Essentials of Business Analytics - Chapter 10: Nonlinear Optimization <b>HW 4 due</b>
Oct 27 & 29	Exam Review
Nov 3 & 5	<b>EXAM 2 – Closed Book - 8 ½ x 11 Cheat Sheet allowed</b>
Nov 10 & 12	Essentials of Business Analytics - Chapter 11: Monte Carlo Simulation <b>HW 5 due</b>
Nov 17 & 19	Essentials of Business Analytics - Chapter 12: Decision Analysis & Exam Review
Nov 24 & 26	<b>Fall Break – Happy Thanksgiving!</b>
Dec 1 & 3	<b>Final Review</b> <b>Final Test</b>

**Grading Policy**

Homework 5:	25% (50 points each-250 total)
Exam (2):	40% (200 points each-400 total)
Final	35% (350 points)
	Total: 1,000 Points

97-100 = A+; 93-96 = A; 90-92 = A-  
 87-89 = B+; 83-86 = B; 80-82 = B-  
 77-79 = C+; 73-76 = C; 70-72 = C-  
 67-69 = D+; 63-66 = D; 60-62 = D-; less than 60 = F

**Course Policies**

Make Up Test:	No make-up tests.
Late Work:	25% deduction on late work (accepted until solutions posted)
Class Attendance:	Being on time & 100 % class attendance expected for full understanding of this course.

**UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

*The content in this syllabus is subject to change at the discretion of the Professor.*

Revised on Friday, August 21, 2015