

University of Texas at Dallas - School of Management

		Course Title		Spreadsheet Modeling & Analytics									
		Course		OPRE 6332									
		Term		Fall 2016									
				Section		Day		Time				Location	
				001		Wed		4:00-6:45		PM		JSOM 2.106	
				501		Thu		7:00-9:45		PM		JSOM 2.106	
				502		Fri		7:00-9:45		PM		JSOM 2.717	
		Professor		Kannan Ramanathan									
<u>Professor's Contact Information</u>													
Office Phone				(972) 883-5953									
Office Location				JSOM 3.622									
Email Address				Kannan.Ramanathan@UTDallas.Edu									
Office Hours				Thursday 5:30 - 6:30 PM (by appointment only)									
<u>Teaching Assistant's Contact Information</u>													
		Name		Po-Ting Kao									
		Email Address		<a href="mailto:pxk154330@utdallas.edu">pxk154330@utdallas.edu</a>									
		Office		JSOM 2.604									
		Office Hours		MON		3:00		4:00		PM			
				TUE		4:00		5:00		PM			
<u>Teaching Assistant's Contact Information</u>													
		Name		Kathiresan, Dinesh									
		Email Address		<a href="mailto:dxk153230@utdallas.edu">dxk153230@utdallas.edu</a>									
		Office		JSOM 2.604									
		Office Hours		THU		3:00		4:00		PM			
				FRI		3:00		4:00		PM			

### Course Description

This course introduces the basic concepts of model building and encourages students to take an analytical view of business decision making. Microsoft Excel (Version 2013, Windows Environment) is used to build models. The course covers concepts in effective spreadsheet design and use, and students acquire knowledge about specific decision making techniques for business, such as optimization. Students build spreadsheet models to identify choices, formalize trade-offs, specify constraints, perform sensitivity analyses, and analyze the impact of uncertainty. Applications in supply chain management, transportation, marketing and finance are examined. Note: This is a fun, but demanding, course. Each week, you should be able to commit a lot of time to prepare for each class, and to complete homework assignments which are a significant part of your grade.

### Learning Objectives

	At the conclusion of this course, the student should:									
1	be able to identify the conceptual structure of a decision or planning problem									
2	understand the logic associated with the components and process of model development									
3	assess the significance and limitations of model outputs for managerial insights and action									
4	appreciate the power and limitations of MS Excel in modeling									
5	appreciate the potential of management science in addressing management issues									

### Required Text

Introduction to Spreadsheet Modeling and Analytics  
Seventh Edition, by Kannan Ramanathan

**Book will be available at UTD bookstore.**

**Three copies of the book will be on reserve in the library**

### Also Required:

Excel 2013 or 2016 (Windows Platform - Any version) you can use a Mac; but I am not familiar with Mac	Flashdrive - with at least 0.5 GB
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Note: make sure you have Excel 2013 or 2016

# Assignments & Academic Calendar

The following is a tentative schedule, which I will try to follow as closely as possible.

Should any changes become necessary, I will announce it in class and by email sent to your UTD email address.

## FOR EACH QUIZ AT THE TESTING CENTER, You MUST RESERVE YOUR SEAT

	Day	Date	Topic
1	Wed	Aug-24	Chapters 1 through 6
	Thu	Aug-25	Getting started with Excel; the command system; the file system; navigation; working with data;
	Fri	Aug-26	referring to data
2	Wed	Aug-31	Chapters 7 through 9
	Thu	Sep-01	Validating data; naming cells; protecting and backing up data
	Fri	Sep-02	
3	Wed	Sep-07	Quiz 1 - Chapters 1 through 9 - at Testing Center, McDermott Library Basement
	Thu	Sep-08	Section 001 can take the quiz between 3:00 and 5:00 pm
	Fri	Sep-09	Section 501 and 502 can take the quiz between 6:00 and 8:00 pm
			Come to class after Quiz Section 001 will start at 5:15 pm      Section 501 and 502 will start at 8:15 pm Chapters 10 through 11, Formatting, Functions
4	Wed	Sep-14	Review of Quiz 1
	Thu	Sep-15	Chapter 12 through 15
	Fri	Sep-16	Date and time functions; Lookup and reference functions; Logical functions
5	Wed	Sep-21	Quiz 2 - Chapters 1 through 12 - at Testing Center, McDermott Library Basement
			Section 001 can take the quiz between 3:00 and 5:00 pm
	Thu	Sep-22	Section 501 and 502 can take the quiz between 6:00 and 8:00 pm
	Fri	Sep-23	Come to class after Quiz Section 001 will start at 5:15 pm      Section 501 and 502 will start at 8:15 pm Chapters 16 through 17. We will start on Chapter 18.
			Information functions; String functions; Introduction to time value of money
Home Work Due by 11:30 PM, the day before next class			HOMEWORK TO BE ANNOUNCED You MUST bring your completed homework on a flash drive You will need to do this for each homework assignment
6	Wed	Sep-28	Review of Quiz 2
	Thu	Sep-29	Chapter 18
	Fri	Sep-30	Finance Functions
Home Work Due by 11:30 PM, the day before next class			HOMEWORK TO BE ANNOUNCED You MUST bring your completed homework on a flash drive You will need to do this for each homework assignment

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7			Mid-Term Testing Center, McDermott Library Basement No class today after mid-term									
	Wed	Oct-05	Section 001	- can take Mid-Term between 3:15 pm-7:00 pm on Oct 5th								
	Thu	Oct-06	Section 501	- can take Mid-Term between 6:00 pm-9:00 pm on Oct 6th								
	Fri	Oct-07	Section 502	- can take Mid-Term between 6:00 pm-9:00 pm on Oct 7th								
			No class today after mid-term									
8	Wed	Oct-12	Review of MidTerm. This review is your only opportunity to discuss questions relating to the MidTerm. Do not miss this review as I will not discuss the MidTerm later or during office hours.									
	Thu	Oct-13										
	Fri	Oct-14										
			Chapter 19      Spreadsheet modeling and What-If analyses									
9	Wed	Oct-19	Quiz 3 - Chapters 1 through 18 - at Testing Center, McDermott Library Basement Section 001 can take the quiz between 3:00 and 5:00 pm Section 501 and 502 can take the quiz between 6:00 and 8:00 pm Come to class after Quiz <del>Section 001 will start at 5:15 pm      Section 501 and 502 will start at 8:15 pm</del> Chapter 20, Introduction to Optimization									
	Thu	Oct-20										
	Fri	Oct-21										
Home Work Due by 11:30 PM, the day before next class			HOMEWORK TO BE ANNOUNCED  You MUST bring your completed homework on a flash drive									
10	Wed	Oct-26	Review of Quiz 3									
	Thu	Oct-27	Discussion of homework									
	Fri	Oct-28	Discussion of modeling problems									
Home Work Due by 11:30 PM, the day before next class			HOMEWORK TO BE ANNOUNCED  You MUST bring your completed homework on a flash drive									
11	Wed	Nov-02	Quiz 4 - Chapters 1 through 20 - at Testing Center, McDermott Library Basement  Section 001 can take the quiz between 3:00 and 5:00 pm Section 501 and 502 can take the quiz between 6:00 and 8:00 pm Come to class after Quiz Section 001 will start at 5:15 pm      Section 501 and 502 will start at 8:15 pm Chapters 21 through 22  Filters, pivot tables									
	Thu	Nov-03										
	Fri	Nov-04										
Home Work Due by 11:30 PM, the day before next class			HOMEWORK TO BE ANNOUNCED  You MUST bring your completed homework on a flash drive									

12	Wed	Nov-09	Review of Quiz 4										
	Thu	Nov-10	Discussion of homework										
	Fri	Nov-11	Chapter 23										
			Introduction to Visual Basic for Applications										
			You MUST bring your completed homework on a flash drive										
13	Wed	Nov-16	Quiz 5 - Chapters 21 - 22 at Testing Center, McDermott Library Basement										
	Thu	Nov-17	Section 001 can take the quiz between 3:00 and 5:00 pm										
	Fri	Nov-18	Section 501 and 502 can take the quiz between 6:00 and 8:00 pm										
			Come to class after Quiz										
			Section 001 will start at 5:15 pm                      Section 501 and 502 will start at 8:15 pm										
			Chapter 23										
			Introduction to Visual Basic for Applications (concluded)										
		Review of final											
14	Wed	Nov-23	Fall & Thanksgiving Break No Class										
	Thu	Nov-24											
	Fri	Nov-25											
			Final - Testing Center, McDermott Library Basement										
15	Wed	Nov-30	Section 001	- can take Final between 3:15 pm-7:00 pm on Nov 30th									
	Thu	Dec-01	Section 501	- can take Final between 6:00 pm-9:00 pm on Dec 1st									
	Fri	Dec-02	Section 502	- can take Final between 6:00 pm-9:00 pm on Dec 2nd									
The course focuses on learning-by-doing. It involves a combination of lectures and extensive class discussions and student presentations, of materials from the textbook. My intent is to help you think through the issues in a given context, and to help you articulate your arguments in class discussions clearly and concisely. Students are expected to read the assigned material before coming to class, and to attend all classes. The course grades will be based on the weights shown below:													
		Attendance/homework assignments/presentation/class participation								8%			
		Quiz 1	Best of 4 quizzes						8%				
		Quiz 2							8%				
		Quiz 3							8%				
		Quiz 4							8%				
		Quiz 5							8%				
		Mid-Term Test							30%				
		Final Test							30%				
		Penalty for late submission of homework (each instance)								-1%			
		Penalty for not being ready to present homework (each instance)								-2%			
		Penalty for Cell Phone use / Internet use during class (each instance)								-5%			

<u>Class Attendance, Participation, Professional Conduct</u>													
Points for class participation will be based on your punctuality, regular attendance, quality and extent of discussion in class, and during guest lectures. Class participation requires your studying class materials before the class. I will also expect you to maintain professional conduct and decorum inside the class room. <b>USE OF CELL PHONES, TEXTING, EMAILING, AND SURFING THE INTERNET ARE STRICTLY FORBIDDEN DURING CLASS HOURS - A VIOLATION CARRIES A PENALTY OF 5% FROM YOUR FINAL GRADE.</b>													
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The Judicial Affairs website lists examples of academic dishonesty. Dishonesty includes, but is not limited to cheating, plagiarism, collusion, facilitating academic dishonesty, fabrication, failure to contribute to a collaborative project and sabotage. See <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-Basicexamples.html> for details.

Plagiarism on written assignments, especially from the web, from portions of papers for other classes, and from any other source is unacceptable. On written assignments, this course may use the resources of turnitin.com, which searches the web for plagiarized content and is over 90% effective.

During tests and quizzes, students in this section are not allowed to have with them any food or drinks, scratch paper, course materials, textbooks, notes, invisible ink pens, or electronic devices, including IPads, iPhones, iPods, MP3 Players, earphones, radios, smart phones, cameras, calculators, multi-function timepieces, or computers. When possible, students should sit in alternating seats, face forward at all times, and remove any clothing which might conceal eye movements, reflect images of another's work, or hide course material for copying.

Exam proctors will monitor any communication or signaling between students by talking, whispering, or making sounds, or by using your hands, feet, other body movements, the test paper itself or your writing implement.

Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:

1. Homework – Zero for the Assignment
2. Case Write-ups – Zero for the Assignment
3. Quizzes – Zero for the Quiz
4. Presentations – Zero for the Assignment
5. Group Work – Zero for the Assignment for all group members
6. Tests – F for the course

These sanctions will be administered only after a student has been found officially responsible for academic dishonesty, either through waiving their right for a disciplinary hearing, or being declared responsible after a hearing administered by Judicial Affairs and the Dean of Student's Office.

In the event that the student receives a failing grade for the course for academic dishonesty, the student is not allowed to withdraw as a way of preventing the grade from being entered on their record. Where a student receives an F in a course and chooses to take the course over to improve their grade, the original grade of F remains on their transcript, but does not count towards calculation of their GPA.

The School of Management also reserves the right to review a student's disciplinary record, on file with the Dean of Students, as one of the criteria for determining a student's eligibility for a scholarship.

#### Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.



### Withdrawal from Class

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You MUST do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

### Student Grievance Procedures

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's Handbook of Operating Procedures.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations.

If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

### Incomplete Grades

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.

### Special Assistance

For help with test anxiety or time management, the following resources are available: your academic advisor, the Learning Resource Center (MC2.402), the Counseling Center (SU1.608), the New Student Programs Office (SU1.610), your instructor.

### Disability Services

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union.

The contact information for the Office of Disability Services is:

The University of Texas at Dallas, SU 22

PO Box 830688

Richardson, Texas 75083-0688

(972) 883-2098 (voice or TTY)

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

### Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

### Off-Campus Instruction and Course Activities

Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at [http://www.utdallas.edu/BusinessAffairs/Travel\\_Risk\\_Activities.htm](http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm). Additional information is available from the office of the school dean.

