



Spreadsheet Modeling and Analytics – Syllabus

Course Information

Course Name	Spreadsheet Modeling and Analytics
Course Number	OPRE 6332/HGMT 6335
Sections	5U1
Term	Summer 2025
Section 501	Monday 6:00 PM, JSOM 2.722

Instructor:	Kannan Ramanathan, PhD
Office:	Jindal School of Management, 3.622
Virtual Office Hours:	Email for appointment
Email:	kxr087000@utdallas.edu

TA:	Amit Pandey
TA Email:	Amit.Pandey@utdallas.edu
Office Hours:	Monday and Wednesday (3-4 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 365, 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. This is a fun, but demanding, course. Each week, you MUST commit at least three hours to prepare for class, and to complete homework assignments which are a significant part of your grade.

Course Modality and Expectations

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. Successful participation is defined as consistently adhering to the university requirements, as presented in this syllabus. Participation includes engaging in group or



other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (including guest lectures and review sessions). Failure to comply with these university requirements is a violation of the Student Code of Conduct. Class participation may be one or more of: attending the live session, asking questions during the live session, and meeting with the professor and/or TAs to discuss.

Course Platform

→ Classes will be in person at JSOM 2.722

Links to eLearning resources

- [Getting Started with eLearning](#)
- [Student eLearning Tutorials](#)
- [eLearning Support Center](#)

Students Learning Objectives/Outcomes

At the conclusion of this course, the student should:

- Be able to identify the conceptual structure of a decision or planning problem
- Understand the logic associated with the components and process of model development
- Assess the significance and limitations of model outputs for appropriate actions
- Appreciate the power and limitations of MS Excel in modeling
- Appreciate the potential of management science in addressing management issues

Recommended Textbooks and Materials

Introduction to Spreadsheet Modeling and Analytics

by Kannan Ramanathan, Twentieth Edition

- Hardcopy available on www.amazon.com (for purchase) at the link below <https://shorturl.at/mDTo4>
- or https://www.amazon.com/s?k=B0DQ5CQ68W&crd=1EUTTIZ218D72&srefix=b0dq5cq68w%2Caps%2C148&ref=nb_sb_noss
- Do NOT use a PDF or scanned copy of the textbook – this is illegal

NOTE

- You are NOT required to buy the textbook
- Free copies are available for reference in the library

Other useful links

- For students with disabilities - [link to accommodations](#)
- Academic Support Resources - [academic support resources](#)
- University's policies - [syllabus policies](#)



Use of Class Materials

- Do not reproduce or share these materials with those not in your section/class
- Do not record any part of this course
- Be aware the instructor may record meetings of this course which may be made available to all students registered for this class
- Be in compliance and do not violate the [Student Code of Conduct](#)

Professional Conduct, Bonus Points, Penalty Points, Grade Enquiries

This course emphasizes not only academic performance but also good communication (e.g., check your grammar and spelling when sending emails) and corporate presence (e.g., conduct yourself professionally, be punctual, submit assignments on time). Note the following.

- Do NOT use your phone during class (whatever the reason)
- There is a **penalty of 2% point** for each such use
- If you schedule an appointment with the TA (in-person/virtual), do not miss it or be late
- There is a **penalty of 1% point** if you are late or fail to attend the meeting, without a day's prior notice
- You can schedule and re-schedule your quiz as many times as you want on the specified days. However, there is a **penalty of 10% points** if your quiz/exam needs to be re-scheduled outside those days
- After the final grades are uploaded, DO NOT contact the TA or the Professor for changes to your grade
- **Emails asking for grade changes will be ignored**
- **If you have concerns about your marks or grades for any homework, quiz, or assignment, you MUST contact TA or Professor within 72 hours of the grades being posted. The same applies if your grades are not visible. Do not wait till end of course.**
- For any meeting with the Professor, you MUST schedule an appointment
- If you include your phone number when you email the Professor, your question may be answered more quickly
- You have opportunities to earn bonus marks (e.g., by answering questions in class)
- These bonus marks are awarded at the discretion of the instructor
- There is no limit either on the penalty points or on the bonus marks awarded at Professor's discretion
- A mark is what you get for answering a question correctly in your exams; a point is a percentage point. Percentage points for bonus (or penalty) will be added to (or deducted from) your course percentage. Marks will be converted to percentage points at the rate of five marks = one percentage point.
- For synchronous classes, you MUST have your video and audio on. If you do not, you will not qualify for any bonus points, or extra credit assignments.



Quizzes

Quizzes	Dates		Time	Cumulative scope of quiz	% of grade	
			(Minutes)			
You are allowed to (and expected to) use Excel for each quiz						
Q1				50 MCQ		Level of difficulty will be higher for each quiz.
	From	Tue, 17 Jun	60	Chapters 1 to 10 (inclusive)	18%	
	To	Wed, 18 Jun				
Q2				45 MCQ		
	From	Wed, 02 Jul	90	Chapters 1 to 18 (inclusive)	23%	
	To	Thu, 03 Jul				
Q3				40 MCQ		
	From	Thu, 07 Aug	120	All Chapters	29%	
	To	Fri, 08 Aug				
Three quizzes = 75%. Homework (HW) = 20%. % of Completed practice problems = 10%. Total = 100%						
You can take the exam anytime during the above window when the Testing Center can provide a reservation.						

Quizzes 1, 2, and 3 MUST be taken at the UTD Testing Center whenever you can make a reservation on any of the days specified. Note that the UTD Testing Center is not open 24/7. There is no option to take the quiz remotely or virtually. **If you need to have a make-up quiz for any reason (other than a medical reason documented by a Texas-based physician), there will be a deduction of 10% points. The make-up quiz may be different (in both format and grading criteria) from the scheduled quiz.**

Practice problems

Practice problems include ALL problems shown as 'practice' problems. It is expected you will do the practice problems first, and then the homework. These practice problems will be available ONLY till Tuesday August 5.

Homework

HW	Topic	Available on	Complete by
HW1	FINANCE	Sun 6/15/2025	Sun 6/22/2025
HW2	STATISTICS	Sun 6/22/2025	Sun 6/29/2025
HW3	DATA TABLE	Sun 6/29/2025	Sun 7/6/2025
HW4	OPTIMIZATION	Sun 7/13/2025	Sun 7/20/2025
HW5	PIVOT TABLE	Sun 7/27/2025	Sun 8/3/2025

PLEASE NOTE:

→ There are five homework (HW) assignments. Each is worth 4% of your grade.



- No time limit for each assignment.
- Each homework may have multiple problems, each with several multiple-choice questions
- **YOU MUST SUBMIT HOMEWORK ASSIGNMENTS BEFORE THE DEADLINE**
- **ONLY ONE SUBMISSION IS ALLOWED**
- **DO NOT SUBMIT ACCIDENTALLY – HOMEWORK WILL **NOT** BE REOPENED**
- **DO NOT WAIT TILL THE LAST MINUTE TO SUBMIT – DEADLINES WILL **NOT** BE EXTENDED**

Grading Criteria

Grading criteria may vary from those of other courses or even this same course in other semesters. Grades will be based on the following point ranges:

GRADES WILL BE BASED ON:

POINTS ABOVE/UPTO	Letter Grade
0%	F
72%	C
77%	C+
80%	B-
83%	B
86%	B+
90%	A-
93%	A

Note: Grades will NOT be curved

When the grades are posted on eLearning, you will have 72 hours to review and notify the instructor if there is an issue with your grade, otherwise, the grade remains as is and will not be changed under any circumstances.

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

Academic Support Resources

- See [Academic Support Resources](#) webpage
- See [UT Dallas Syllabus Policies](#) webpage

READ THE SYLLABUS IN ITS ENTIRETY

Neither the Professor nor the TA will respond to questions if the information is already provided in the syllabus.

Chapter	1	GETTING STARTED WITH EXCEL	Mon Jun 02 2025
Chapter	2	THE COMMAND SYSTEM	Mon Jun 02 2025
Chapter	3	THE FILE SYSTEM	Mon Jun 02 2025
Chapter	4	POPULATING A WORKSHEET WITH DATA	Mon Jun 02 2025
Chapter	5	ABSOLUTE AND RELATIVE REFERENCING	Mon Jun 02 2025
Chapter	6	VALIDATING DATA	Mon Jun 02 2025
Chapter	7	RANGE NAMES	Mon Jun 02 2025
Chapter	8	PROTECTING AND BACKING UP DATA	Mon Jun 02 2025
Chapter	9	FORMATTING	Mon Jun 09 2025
Chapter	10	FUNCTIONS	Mon Jun 09 2025
Chapter	11	DATE AND TIME FUNCTIONS (study on your own)	Mon Jun 09 2025
Chapter	12	REFERENCE FUNCTIONS	Mon Jun 09 2025
Chapter	13	LOGICAL FUNCTIONS	Mon Jun 09 2025
Chapter	14	MATHEMATICAL FUNCTIONS	Mon Jun 09 2025
Chapter	15	STRING FUNCTIONS	Mon Jun 09 2025
Chapter	16	FINANCE FUNCTIONS	Mon Jun 16 2025
Chapter	17	ARRAYS	Mon Jun 16 2025
Chapter	16	IN CLASS PRACTICE	Mon Jun 16 2025
Q1			
TUESDAY JUN 17 – WEDNESDAY JUN 18			
CHAPTERS 1 THROUGH 10 (INCLUSIVE)			
Chapter	18	STATISTICAL FUNCTIONS	Mon Jun 23 2025
Chapter	19	SPREADSHEET MODELING AND WHAT-IF ANALYSES	Mon Jun 23 2025
Chapter	20	OPTIMIZATION	Mon Jun 23 2025
Chapter	20	OPTIMIZATION	Mon Jun 30 2025
Chapter	20	OPTIMIZATION	Mon Jul 07 2025



Q2			
THURSDAY JUL 10 - FRIDAY JUL 11			
CHAPTERS 1 THROUGH 18 (INCLUSIVE)			
Chapter	21	ANALYZING DATA	Mon Jul 14 2025
Chapter	22	PIVOT TABLES	Mon Jul 14 2025
Chapter	22	PIVOT TABLE IN CLASS PRACTICE	Mon Jul 14 2025
Chapter	24	DATA VISUALIZATION	Mon Jul 21 2025
Chapter	24	DATA VISUALIZATION - CREATING QUESTIONS	Mon Jul 21 2025
Chapter	24	VISUAL BASIC FOR APPLICATIONS	Mon Jul 21 2025
Chapter	23	VISUAL BASIC FOR APPLICATIONS	Mon Jul 21 2025 Mon Jul 28 2025
		IN CLASS REVIEW	Mon Aug 04 2025
Q3			
THURSDAY AUG 7 - FRIDAY AUG 8			
CHAPTERS 1 THROUGH 24 (INCLUSIVE)			