OPRE 3360: Managerial Methods in Decision Making Under Uncertainty University of Texas at Dallas

# Fall 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 3360.011

Course Title: Managerial Methods in Decision Making Under Uncertainty

Term: Fall 2019

Days and Time: Friday 1:00 PM - 3:45 PM, JSOM 2.722

Instructor: Robert Best
Office: JSOM 3.428

Office Hours: Friday 9:00 AM – 12:00 Noon

Email: robert.best@utdallas.edu

**TA**: Sameera Epari

TA Email: Sameera.epari@utdallas.edu

TA Office Hours: TBD
TA office Number: TBD

**Course Pre-requisites**, Co-requisites and/or Other Restrictions MATH 1326 or MATH 2414 or MATH 2419

#### **Course Description**

Introduces the concept of probability and statistics to managerial decision making. Concepts will be developed in lecture and exercises using software packages. Topics include: summarizing and presenting data, probability theory, sampling, estimation, confidence intervals, hypothesis testing and regression. Emphasis will be given to modeling and solving business problems in Finance, Marketing, Accounting, and Operations Management.

### **Learning Outcomes**

Students are expected to develop skills on problem formulation, identification of appropriate statistical techniques, computer implementations in Excel and manual calculations and written explanations, and interpretation of empirical results. At the end of this course you should be able to:

- Be acquainted with the concept of sample and population.
- Calculate and interpret statistics in context.
- Use statistics to describe samples and test hypothesis to make inferences about populations.
- Present data using Excel as an analytic tool.

#### OPRE 3360 - Course Syllabus II

#### **Required Textbooks and Materials**

**Textbook**: Modern Business Statistics with Microsoft Excel (6th Edition) You have two options to purchase the textbook:

- 1. Through UTD Bookstore
- 2. Through Cengage.

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 students 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 Managerial Methods in Decision Making Under Uncertainty webpage should be available. Presentation slides, handouts, data files, homework assignments, and review questions will be available on this webpage. The instructor expects students to keep up with these materials. It is each students responsibility to check the website before each class and bring that days lecture, examples, and homework materials to class. 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 AND current class. 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 and the top seven will be considered only.
- 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 advice you **do not skip classes/quizzes** and keep the two chances for unexpected circumstances.

## **OPRE 3360 - Course Syllabus III**

#### **Course Policies**

- 1. The quizzes will be taken in class.
- 2. Announcements/changes will be through the elearning. It is <u>your responsibility</u> 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 <u>NO make-up exam</u> 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 <u>academic dishonesty</u> are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:
  - Homework Zero for the Assignment
  - Case Write-ups Zero for the Assignment
  - Quizzes Zero for the Quiz
  - Presentations Zero for the Assignment
  - Group Work Zero for the Assignment for all group members
  - Tests 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.

# **OPRE 3360 - Course Syllabus IV**

# **Grading**

Grades are assigned based upon the following scale and weighting

Combined Quizzes	20%
Exam 1	20%
Exam 2	30%
Exam 3	30%

97-100	A+	87-89.99	B+	77-79.99	C+	67-69.99	D+
93-96.99	Α	83-86.99	В	73-76.99	С	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.

# OPRE 3360 - Course Syllabus V

# **Course Calendar**

Wk	Date	Topic	Book (Chapter)	Quiz
1	F: Aug 23	Intro to OPRE 3360 and "Data" (Begin Ch 2)	1, 2a	-
2	F: Aug 30	Descriptive Stats: Tabular & Graphical	2b	-
3	F: Sep 6	Descriptive Stats: Numerical Measures	3	Q1(1-2)
4	F: Sep 13	Intro to Probability	4	-
5 F: Sep 20		Discrete Probability Distributions	5	-
		Exam 1 +	Ch 1-4	-
6	F: Sep 27	Discrete Probability Distributions	5	-
7	F: Oct 4	Continuous Probability Distributions	6	Q2(3-5)
8	F: Oct 11	Continuous Probability Distributions	6	-
-	S: Oct 12	Mid-Term Grades Due	-	-
9	F: Oct 18	Sampling and Sampling Distributions	7	-
10	F: Oct 25	Interval Estimation	8	-
		Exam 2 +	Ch 5-7	-
11	F: Nov 1	Interval Estimation	8	-
12	F: Nov 8	Hypothesis Testing	9	Q3(6-7)
13	F: Nov 15	Linear Regression	14	
14	F: Nov 22	Linear Regression	14	Q4(8-9)
15	F: Nov 29	Thanksgiving Break	-	-
15	F: Dec 6	Linear Regression; Reading Day	14	-
16	F: Dec 13	Exam 3	Ch 8-9+14	
	W: Dec 18	Final Grades Due		