



**Course** OPRE 3360.003  
**Professor** Managerial Methods in Decision Making Under Uncertainty.  
**Term** Dr. Athena Alimirzaei  
**Meetings** Spring 2018  
Tuesday/Thursday 1:00 - 2:15 pm

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### PROFESSOR'S CONTACT INFORMATION

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| <b>Phone</b>              | 972-883-5901                                                                                                                                                                               |
| <b>Office location</b>    | JSOM 3.225                                                                                                                                                                                 |
| <b>Email address</b>      | <a href="mailto:Athena.Alimirzaei@utdallas.edu">Athena.Alimirzaei@utdallas.edu</a>                                                                                                         |
| <b>Office hours</b>       | Tuesday 10:30-11:30 AM by appointment                                                                                                                                                      |
| <b>Other information</b>  | E-mail is recommended for <b>ALL</b> communications during the semester. eLearning will be used to post announcements, assignments and grades. Please put OPRE 3360 in your email subject. |
| <b>Teaching Assistant</b> | Tanya Israni                                                                                                                                                                               |
| <b>T.A. Information</b>   | <a href="mailto:Tanya.Israni@utdallas.edu">Tanya.Israni@utdallas.edu</a>                                                                                                                   |
| <b>TA office hours</b>    | TBD (Statistics and Math Lab)                                                                                                                                                              |

### GENERAL COURSE INFORMATION

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| <b>Pre-requisites, Co-requisites, &amp; other restrictions</b> | Prerequisite: <u>MATH 1326</u> Applied Calculus II (or <u>MATH 2414</u> Integral Calculus or <u>MATH 2419</u> Calculus II). The topics discussed in this course are inherently mathematical. Although the level of math in this course is not advanced, students are encouraged to explore supplementary resources early on the semester.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Course Description</b>                                      | Introduces the concept of probability and statistics to managerial decision making. Concepts will be developed in lecture and exercises. Some problems will be solved using software packages. Topics include: summarizing and presenting data, probability theory, sampling, estimation, confidence intervals, hypothesis testing, regression, and ANOVA. Emphasis will be given to modeling and solving business problems in Finance, Marketing, Accounting, and Operations Management.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Learning Outcomes and Expectations</b>                      | <p>As any statistics course, this class requires much work in and out of the classroom. Active and informed participation is expected from every student. Class sessions will be a combination of lecture, discussion, and in-class exercises. Because the readings are a major source of learning, students are expected to study this material as it is assigned. Though it shall vary from week to week, plan to spend an estimated 6 to 9 hours per week on this class, in addition to classroom time.</p> <p>At the end of this course you should:</p> <ul style="list-style-type: none"><li>• Be acquainted with the concept of sample and population</li><li>• Be able to calculate and interpret statistics in context</li><li>• Be able to use statistics to describe samples and test hypothesis to make inferences about populations.</li><li>• Be able to present data using Excel as an analytic tool.</li></ul> |
| <b>Required Texts &amp; Materials</b>                          | <p>Anderson, D., Sweeney, D. and Williams, T. (2014) Modern Business Statistics with Microsoft Office Excel, 5th ed. with Cengage Aplia online learning resource,</p> <p>Choose one of the following two options:</p> <p>Option 1- Aplia and ebook – ISBN 9781305255128</p> <p>Option 2- Aplia, ebook and 3-ring loose leaf textbook – ISBN 9781305029125</p> <p>Instructions of how to register with Aplia will be provided in class.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                           | <p>Purchasing Options:<br/> Option 1 – UTD Bookstore<br/> Option 2 - <a href="http://services.cengagebrain.com/course/site.html?id=2652506">http://services.cengagebrain.com/course/site.html?id=2652506</a></p> <p>A calculator is required for this course. Any calculator of your choice is authorized as long as it has the following minimum capabilities: basic 4-functions, square root, exponent, and display 4 or more decimal places. You are required to bring this calculator to each exam and know how to use it.</p> |
| <b>Suggested Readings, &amp; Material</b> | If you attend class regularly and do the assigned work, the textbook and lecture notes should suffice!                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Syllabus Changes</b>                   | Though this syllabus is intended to be a guide for our course, I reserve the right to modify any of its contents throughout the semester if necessary. Any changes will be discussed in class and posted immediately on the UTD eLearning site so you can plan accordingly. Be sure to check for any announcements, since this document functions as a contract of what to expect in this class.                                                                                                                                   |

## COURSE POLICIES

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| <b>Grading (credit) Criteria</b> | <p>Grades on exams and assignments will be posted on eLearning. Please check that the posted grade matches the grade on your paper copy and notify the <u>TA</u> as soon as possible in case of a discrepancy.</p> <p>3 In-class exams 25% each (75%). The exams are not cumulative.</p> <p>Aplia Assignments (25%). The assignments covered material from each chapter and the lowest grade will be dropped. <u>Due dates and grades for the assignments will be displayed in Aplia.</u></p> <p>95 points = A+; 90 points = A<br/> 85 points = B+; 80 points = B;<br/> 75 points = C+; 70 points = C;<br/> 65 points = D+; 60 points = D;<br/> 59 and below = F</p> |
| <b>Make-up Exams</b>             | <p>Make-up exams may be offered under certain <u>justified</u> circumstances. Discuss it with the instructor.</p> <p>Legitimated excuse for absence: illness (proof from doctor required), observation of religious holy days, or other situation with the instructor's authorization</p>                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Assignments</b>               | <b>LATE SUBMISSION IS NOT ACCEPTABLE.</b> All assignments should be submitted on the due day using Aplia. There will be no make-up assignments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Extra Credit</b>              | Credit may be given to class attendance and participation in class discussion, as well as for solving problems in class.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Class Attendance</b>          | <b>EXPECTED.</b> Looking at previous experiences with this and other classes, tardiness and absence are the main contributing factors to poor grades.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Classroom Citizenship</b>     | <ol style="list-style-type: none"> <li><u>Class begins on time.</u> Please maintain class decorum and be respectful towards fellow students in the class. If you have a doubt or misunderstanding regarding course work feel free to discuss it with me.</li> <li><u>Using your phone during class is not permitted and it is rude.</u> Keep it on silent at all time and away from your desk. No texting. Offenders will be asked to turn off their phones. If this is a recurring problem, students will be asked to give their phones to the instructor who will</li> </ol>                                                                                       |

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|                           | <p>return them at the end of the class session.</p> <p>iii. <u>Use of your computer is allowed as long as it is not interrupting the class or distracting other students in the classroom.</u> If such situation occurs, the first time you will be asked to turn off your computer. Recurrent offenders will be asked to leave the classroom. I encourage you to use your computer wisely. In my experience, abusing the use of computers during class time results in unsatisfactory final grades.</p> <p>iv. <u>Use of tablets is allowed,</u> as long as they are used to read the textbook, or to take class notes.</p> <p>v. <u>These rules will be enforced.</u></p> |
| <b>Special Assistance</b> | <p>For help you succeed in the class, the following resources are available: Your instructor, the teaching assistant assigned to this class, JSOM Stats Lab (JSOM 2.709), the Student Success Center (MC1.302), the Student Counseling Center (SSB 4.600) and the New Student Programs Office (SSB 3.600) among other resources.</p>                                                                                                                                                                                                                                                                                                                                        |

**OPRE 3360.003.18S**  
**Managerial Methods in Decision Making under Uncertainty**  
**TENTATIVE CALENDAR & ASSIGNMENTS**  
 Day & Time: T/TH 1:00 – 2:15 pm

| <b>Week/Dates</b> | <b>Reading Assignments, Chapters to be Covered</b>                                                                                    |
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| Jan 9, 11         | Introduction to the course<br>Chapter 1: Data and Statistics, Instructions for Aplia registration.<br>Bring your Laptop if available. |
| Jan 16, 18        | Chapter 2: Descriptive Statistics: Tabular and Graphical Displays                                                                     |
| Jan 23, 25        | Chapter 3: Descriptive Statistics: Numerical Measures                                                                                 |
| Jan 30, Feb 1     | Chapter 4: Introduction to Probability                                                                                                |
| <b>Feb 6, 8</b>   | Exam Review<br><b>EXAM 1: Chapters 1-4*</b>                                                                                           |
| Feb 13,15         | Chapter 5: Discrete Probability Distribution                                                                                          |
| Feb 20, 22        | Chapter 6: Continuous Probability Distributions                                                                                       |
| Feb 27, Mar 1     | Chapter 6: Continuous Probability Distributions                                                                                       |
| Mar 6, 8          | Exam Review<br><b>EXAM 2: Chapters 5-6*</b>                                                                                           |
| <b>Mar 13, 15</b> | <b>No Class- Spring Break</b>                                                                                                         |
| Mar 20, 22        | Chapter 7: Sampling and Sampling Distributions Chapter                                                                                |
| Mar 27, 29        | Chapter 8: Interval Estimation                                                                                                        |
| Apr 3, 5          | Chapter 9: Hypothesis Tests                                                                                                           |
| Apr 10,12         | Chapter 9: Hypothesis Tests                                                                                                           |
| Apr 17,19         | Chapter 14: Simple Linear Regression                                                                                                  |
| Apr 24, 26        | Exam Review                                                                                                                           |
| <b>May 1</b>      | <b>EXAM 3: Chapters 7, 8, 9, 14*</b>                                                                                                  |

**\*On exam day you need to bring: Hand-written formula-sheet allowed (half of letter size page, one side) turn in with the exam. Write your name on it. Calculator required. Students are not allowed to share calculators nor to use cell phone for calculations, so bring your own.**

## GENERAL INFORMATION

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| <b>Student Conduct and Discipline</b> | <p>The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i>, which is provided to all registered students each academic year.</p> <p>The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i>, and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i>. 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 (SU 1.602, 972/883-6391).</p> <p>A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.</p> |
| <b>Academic Integrity</b>             | <p>The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.</p> <p>Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.</p> <p>Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Email Use</b>                      | <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                                     | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Withdrawal from Class</b>        | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Student Grievance Procedures</b> | <p>Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's <i>Handbook of Operating Procedures</i>.</p> <p>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.</p> |
| <b>Incomplete Grades</b>            | 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 <u>F</u> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Disability Services</b>          | <p>The goal of Student AccessAbility is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Student AccessAbility services is located in room SSB 3.200 Office hours are Monday through Thursday, 8 am to 6 pm and Friday, 8 am to 5 pm</p> <p>The contact information for the Office of Student AccessAbility:<br/> The University of Texas at Dallas, SSB 3.200<br/> studentaccess@utdallas.edu<br/> (972) 883-2098 (voice or TTY)</p> <p>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</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                                                     | <p>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.</p> <p>It is the student's responsibility to notify his or her professors of the need for such an accommodation. AccessAbility 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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Religious Holy Days</b>                          | <p>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.</p> <p>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.</p> <p>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.</p> |
| <b>Off-Campus Instruction and Course Activities</b> | <p>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 <a href="http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm">http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm</a>. Additional information is available from the office of the school dean.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**Signature:**

**Date:**