Course Syllabus
OPRE 6301: Quantitative Introduction to Risk and Uncertainty in Business
Fall 2016

Naveen Jindal School of Management (JSOM)
The University of Texas at Dallas

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Course Information

Course:	OPRE 6301.CW2 (MBA: Organization Behavior and Coaching)
	Quantitative Introduction to Risk and Uncertainty in Business
	This course requires a Windows-based computer and Excel 2010 or higher.
Professor:	Dohyeong Kim, Ph.D., Associate Professor
Term:	Fall 2016 (16 weeks: August 22 – December 16)
Dates:	Online Course (see eLearning website to log on)

Professor Contact Information

Professor:	Dohyeong Kim, Ph.D.
Office Phone:	972-883-3512
Office Location:	Green Hall (GR) 3.209
Email:	dohyeong.kim@utdallas.edu
	Email is checked daily, but voicemail on office phone is not checked often.

About the Instructor

Dr. Dohyeong Kim is an Associate Professor of Public Policy and Geospatial Information Sciences at the University of Texas at Dallas. He received his Ph.D in city and regional planning at the University of North Carolina at Chapel Hill, with a specialization of health policy and management. He has taught all levels of statistics courses in universities over ten years (both in-class and online).

He currently serves as a director of the Center for Geospatial Research in Global Health Policy (www.utdallas.edu/geospatial-health) and a co-editor-in-chief for *Journal of Safety and Crisis Management*. He published over 30 scholarly documents, including highly-cited peer-reviewed articles in top-ranked journals in the public and environmental health field such as *Environmental Health Perspective*, *Value in Health, Risk Analysis, Health Policy and Planning, Environmental Science & Technology, American Journal of Tropical Medicine and Hygiene, International Journal of Health Planning and Management, Epidemiology and Infection, Allergy, Asthma & Immunology Research.* His work has been cited more than 470 times in the literature (H-index is 11) and presented in over 110 national and international meetings.

Course Description

Introduction to statistical and probabilistic methods and theory applicable to situations faced by managers and is presented in more of a non-mathematical format for the needs of the practitioner. Topics include: graphical and numerical data presentation and summarization, basic probability and sampling distributions, basic hypothesis testing (t-tests, chi-square tests, and analysis of variance, etc.), estimation and confidence intervals, and correlation and regression analysis. Ample hands-on experiences with computer-based data analysis will be provided to practice how to utilize various quantitative methods with real-world data on health and medicine.

Student Learning Objectives/Outcomes

Students are expected to develop skills on problem formulation, identification of appropriate statistical techniques, manual calculations and computer implementations with actual data, and interpretation of empirical results. Upon completion of this course, students should be able to:

1) Understand key statistical concepts and terms;
2) Organize and summarize raw data using tables, graphs and numbers;
3) Develop and test hypotheses in healthcare business and management;
4) Interpret findings of basic and intermediate statistical analyses;
5) Conduct basic data analysis using Microsoft Excel.

Required Textbooks and Software

Textbook:

Required:
Herkenhoff L. and Fogli J., *Applied Statistics for Business and Management using Microsoft Excel*. New York: Springer, 2013 (ISBN: 978-1-4614-8422-6 (print) / 978-1-4614-8423-3 (eBook))

Supplementary (optional):
Frankfort-Nachmias C. and Leon-Guerrero A., *Social Statistics for a Diverse Society,* 6th Edition. Thousand Oaks, CA: Pine Forge Press, 2011 (ISBN: 1-4129-9253-2 (Print) / 1-4129-9255-9 (eBook))

Textbooks can be ordered online through off-campus bookstore or the UTD Bookstore. They are also available in stock at both bookstores.

Software:

This course uses a Windows-based computer, eLearning, Internet access, Microsoft Excel 2010 or higher (no trial versions), Data Analysis add-in activated (this comes with Excel). You may be able to use an older version of Excel or a Mac, but an additional installation would be necessary and the display may appear slightly different. All the datasets used for lectures and assignments will be available for download from the eLearning website. No prior Excel experience is necessary, although it may prove helpful.

Other course materials:

Any other required and suggested readings, along with the lecture slides, will be posted to the eLearning website.

Course Policies

Online Course:
This course was developed as an online course which includes the virtual classroom webinar sessions and all other online activities provided through a web course tool called eLearning.

Virtual Classroom Webinar Sessions:
There will be **a total of 8 virtual classroom webinar sessions using WebEx** (synchronous online video classes), generally scheduled **every other Tuesday afternoon at 5-6pm CDT (Central Time). Students are expected to attend ALL sessions** as most of the fundamental concepts and theories will be covered during the virtual classroom webinar sessions, along with the basic training of Excel. The times/dates for these sessions are in this syllabus' Academic Calendar. The link for each WebEx session will be sent out to students prior to the scheduled time. These WebEx sessions are also dedicated to go over practice questions in preparation for the assignments/exam and answer questions from students.

Final Exam:
The final exam must be taken during the scheduled test window which is listed on the Academic Calendar, as a makeup exam will not be offered for this course. It is the student's responsibility to have a reliable computer with all of the required software and data files during the exam.

No Extra Credit:
There will be no extra credit opportunities for this course.

Late Work:
None accepted, except in the case where the student provides a written excuse from the appropriate authority.

Virtual Classroom Citizenship:
Students are required to login regularly to the course eLearning site. The instructor may use the tracking feature in eLearning to monitor student activity. Students are also required to participate in all class activities such as WebEx webinar sessions, discussion board and email communications, if required. The same guidelines that apply to traditional classes should be observed in the online instruction environment for this course. Please use proper netiquette when interacting with class members and the instructor.

Policy on Server Unavailability or Other Technical Difficulties:
The university is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the UTD eLearning Help Desk: http://www.utdallas.edu/elearninghelp (phone: 1-866-588-3192). The instructor and the UTD eLearning Help Desk will work with the student to resolve any issues at the earliest possible time. However, it is the student's responsibility to have a reliable internet connection.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation

Online instruction is to be delivered using eLearning and WebEx virtual classroom sessions.   Students will use their UTD NetID account to login at: http://elearning.utdallas.edu. Please see more details on the Course Access and Navigation webpage. To get familiar with the eLearning tool, please see the eLearning Student Tutorials.

UTD provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Support Center: http://www.utdallas.edu/elearninghelp.

Communications

The eLearning has built-in communication tools which will be used for interaction and communication. Some external communication tools such as regular email and WebEx will also be used during the semester. The Discussion Board is to be utilized to exchange ideas or to help each other in how to get started on suggested problem set questions. These types of exchanges should be limited to conceptual discussions, and not to include the posting of detailed solutions for any problems. Test questions must not be discussed on the Discussion Board. For more details, please visit the eLearning Student Tutorials webpage for video demonstrations on numerous tools in eLearning.

Students are expected to use and maintain their UT Dallas email account and ensure that their mailboxes are not full. Important correspondence will be delivered via email through eLearning.

Interaction with Instructor

The instructor will communicate with students mainly using the Announcements and Discussions tools in eLearning. Students may send personal concerns or questions to the instructor using the course email tool. The instructor will reply to student emails or Discussion board messages within 3 working days under normal circumstances. Should you need assistance in solving problems, please utilize the Discussion Board to help each other, and/or ask the instructor. In the event any emails are sent to the instructor for help, some evidence must be included to show you have attempted the problems.

Student Resources

The following university resources are available to students:

UTD Distance Learning: http://www.utdallas.edu/elearning/students/cstudents.htm

McDermott Library: Distance Learners (UTD students who live outside the boundaries of Collin, Dallas, Denton, Rockwall, or Tarrant counties) will need a UTD-ID number to access all of the library's electronic resources (reserves, journal articles, eBooks, interlibrary loan) from off campus. For UTD students living within those counties who are taking online courses, a Comet Card is required to check out materials at the McDermott Library. For more information on library resources go to: http://www.utdallas.edu/library/distlearn/disted.htm

Academic Calendar

Week	Week of	Topics/Activities	Materials/ Assignments
1	August 22	Overview: Statistical Concepts & Excel Training **Webinar #1 (5-6pm CDT, August 23)**	Ch.1-2
2	August 29	*Excel Practice & Exercise*	
3	September 5	Unit 1 Lecture: Summarizing Data **Webinar #2 (5-6pm CDT, September 6)**	Ch.2-3
4	September 12	*Unit 1 Practice & Exercise*	Unit 1 Practice Materials
5	September 19	Unit 2 Lecture: Distribution & Sampling **Webinar #3 (5-6pm CDT, September 20)**	Ch.4, 6, 8
6	September 26	*Unit 2 Practice & Exercise*	Unit 2 Practice Materials **Problem Set #1 Due (by 11:59pm on 9/30)**
7	October 3	Unit 3 Lecture: Inference **Webinar #4 (5-6pm CDT, October 4)**	Ch.7
8	October 10	*Unit 3 Practice & Exercise*	Unit 3 Practice Materials
9	October 17	Unit 4 Lecture: T-test, F-test **Webinar #5 (5-6pm CDT, October 18)**	Ch.11
10	October 24	*Unit 4 Practice & Exercise*	Unit 4 Practice Materials **Problem Set #2 Due (by 11:59pm on 10/28)**
11	October 31	Unit 5 Lecture: χ^2 test **Webinar #6 (5-6pm CDT, November 1)**	Ch.12
12	November 7	*Unit 5 Practice & Exercise*	Unit 5 Practice Materials
13	November 14	Unit 6 Lecture: Correlation & Regression **Webinar #7 (5-6pm CDT, November 15)**	Ch.9, 10, 13
14	November 21	Fall Break	
15	November 28	*Unit 6 Practice & Exercise*	Unit 6 Practice Materials **Problem Set #3 Due (by 11:59pm on 12/2)**
16	December 5	Final Review & Preparation for Final Exam **Webinar #8 (5-6pm CDT, December 6)**	Unit 1-6 Practice Materials
17	December 12	**Final Exam** (Questions given on 9am; answers to be submitted by 11:59pm. Students should find convenient time to take the exam during the test window)	**Final Exam on 12/12 (9am-11:59pm)**

Student Assessments

This course requires the completion of three problem sets and one final exam, which are prepared as a tool to evaluate students' understanding of the materials covered in each unit. All assignments MUST be prepared in MS Word or PDF format along with MS Excel and submitted via email prior to the due date.

Grading Criteria:

Assignment	Materials from (Lecture Slides & Textbooks)	Textbook Chapters	Due Date	Point
Problem Set #1	Units 1 & 2	Ch. 1-6, 8	11:59pm on Sep 30	20
Problem Set #2	Units 3 & 4	Ch. 7, 11	11:59pm on Oct 28	20
Problem Set #3	Units 5 & 6	Ch. 9-10, 12-13	11:59pm on Dec 2	20
Final Exam	All Units	Ch. 1-13	9am-11:59pm on Dec 12	40
			COURSE TOTAL:	100

Letter Grades For the Semester Will Be Determined As Follows:

Total Points	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
70-76	C
69 and below	F

Accessing Grades:

Students can check their grades under Course Tools after the grade for each assessment task is released.

Scholastic Honesty

The University has policies and discipline procedures regarding scholastic dishonesty. Detailed information is available on the UTD Student Affairs web page. All students are expected to maintain a high level of responsibility with respect to academic honesty. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

Course Evaluation

As required by UTD academic regulations, every student must complete an evaluation for each enrolled course at the end of the semester. A link to an online instructional assessment form will be emailed to you for your confidential use.

University Policies

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 descriptions and timelines in this syllabus are subject to change at the discretion of the instructor.