Syllabus risk



BADM 574 - MSTM Simulation and Risk Analysis Spring 2013 Lectures: ADV: TR 9: 30 am - 10: 50 am in 2043 BIF GRD: TR 11: 00 am - 12: 20 pm in 2043 BIF Final Exam: 7-10 pm, Tuesday May 7, 2013 ADV: 2041 BIF GRD: 2043 BIF Instructor: H. Dharma Kwon, Assistant Professor of Business Administration, College of Business, University of Illinois Of? ce: Email: Phone: Of? ce Hours: 365 Wohlers Halledu 217-333-3522 Tuesdays 2 - 4 pm or by appointment Note: When you send email to the instructor, your subject line must contain the course title. During the of? ce hours, you can call my of? ce.

Course Objectives: This course is about using numbers to make better decisions. The focus will be on "handson" use of quantitative tools for solution of management problems often involving risk and uncertainty. Speci? c course objectives: (1) Introduce you to practical yet sophisticated tools suitable for modeling and solving complex managerial problems with risky outcomes, and (2) improve 1 your skill and experience with the use of spreadsheet tools for analysis of management decision problems. We will learn to mathematically model business decision problems and apply their analytical skills to realistic business contexts.

The material covered is useful for executives in all professional areas of business, including but not limited to accounting, ? nance, marketing, information systems, operations management or any other area where it is important to combine quantitative analysis with expert intuitive judgment. Prerequisite: This course builds upon some rudimentary knowledge ofmathematics(probability and statistics) and basic pro? ciency with Microsoft Excel. Required Materials: 1. To purchase the required electronic

course pack, go to https://create. mcgraw-hill. com/shop/ and search for the following ISBN number: 1121833926.

The course pack contains all required cases and some readings. 2. TreePlan, RiskSim, and SensIt (provided by the MSTM program and downloadable from Compass 2g course website) 3. A laptop and Microsoft Excel 2010 (for Windows) or 2011 (for Mac) installed in your laptop Evaluation Methods: There are four components to the evaluation: Case Summary: Minicase Analysis: Group Project: Final Exam: Cases Summary: Roughly every week, individual case summary assignment(s) are due. We will discuss cases in class, so it is important to read and understand the problems posed by the cases before coming to the classroom.

The summary of each case must not exceed one page, and it must be submitted on-line via Compass. (PDF format is strongly preferred). It will be graded on a pass/fail basis. In order to pass a case summary assignment, you must show suf? cient evidence that you have read the case and understood the gist of it. 2 10% 30% 15% 45% Minicase Analysis: Minicase analyses (problem sets) will be assigned roughly once a week and graded. The minicases are designed to help you learn the mechanics of the methods covered in class and to give you an opportunity to apply the concepts in simple and illustrative contexts.

Please note that minicase assignments require careful interpretation and analysis of the given problems. Points will be deducted if you misinterpret the information given in the case assignments. Discuss your assumptions and clearly explain your quantitative reasoning. Answers (even correct answers) without logical and quantitative reasoning will not receive credit.

Minicase analysis assignments will be posted on Compass. This is sometimes an individual assignment but sometimes a team assignment. Late assignments are generally not accepted. Group Project: In the last week of the course, each team will submit an original minicase.

The minicase should be based on a real business situation (in the past, in the present, or in the future) and must be analyzed using one or more of the methods or concepts discussed in this course. If you'd like, you can also add other methodology that is not discussed in class. Each case must consist of two parts. In part 1, a business decision problem must be presented with essential information. It can be a ? ctional situation, but it must be based on a real business situation. Part 1 might look like one of the short cases that we analyze in this course and the text (excluding exhibits) must not exceed 5 pages typed ingle-spaced in 12 pt font. (See Darden's cases for the document format). In part 2, the solution to the problem posed in part 1 must be given. When you construct the minicase, you should have pedagogical values in mind, i. e., think of writing a teaching case or an open-book exam for future MSTM students at the University of Illinois. Your submitted work will be evaluated based on how well the decision analytical framework is utilized to solve a given (hopefully non-trivial) problem (50%) and its pedagogical value or the practicality of the problem (50%).

Final Exam: There will be an in-class 3-hour-long open-book, open-notes, and open-laptops? nal exam. You are NOT allowed to share your laptops with other students or send/receive emails during the? nal exam. If you miss the? nal exam without prior discussions with the instructor or without university-authorized emergencies, then you will receive zero credit. 3

Practice Problem Sets: Practice problem sets and their solution keys will be regularly posted on Compass. They are designed to help you understand the material and to provide practice using various concepts and techniques discussed in class.

These assignments will not be collected or graded. However, these problem sets will be helpful for the quiz and the ? nal exam. Some practice problems will be discussed as examples in class. Grades: The ? nal letter grade will be based upon each individual's level of understanding and learning evidenced by the weighted cumulative points from all four components shown in Evaluation Methods. Laptop and Electronic Communications Policy: You are required to bring your laptop to each class; you will have to use your laptop to download ? es and participate in problem-solving activities in class. You are not allowed to check e-mail or send text messages using your cell phone or laptop. Set your cell phone to silent mode. AcademicIntegrity and Honor Code: You are expected to behave ethically throughout the term and follow the norms and guidelines outlined by the University on academic integrity. 4 Course Modules: Module 1 Topic Reading Cases Module 2 Topic Reading Cases Module 3 Topic Reading Cases Module 4 Topic Reading Cases Module 5 Topic

Reading Cases Module 6 Topic Reading Cases Module 7 Topic Reading Cases Value of Information and Control Risk Management Harimann International Optional module (if time permitted) Downstream Decisions – Merck & Co.; International Guidance Control Sensitivity Analysis Sensitivity Analysis Using SensIt CyberLab (A), Supp, (B); Liquid Gold Probability Assessment from Historical Data Probability Distributions Commerce Tavern Simulation

Analysis Monte Carlo Simulation Using RiskSim George's Revised Forecast and Addendum Sampling and Statistical Inference – Jade Shampoo (A) and (B) Decisions under Uncertainty DTP Ch. George's T-Shirts DTP: Decision Tree Primer (http://www. public. asu. edu/~kirkwood/DAStuff/decisiontrees/index. html) Monte Carlo Simulation Using RiskSim (http://www. treeplan. com/chapters/RiskSim-Guide243. pdf) Sensitivity Analysis Using SensIt (http://www. treeplan. com/chapters/SensIt-Guide-145. pdf) 5