ENG MGT 6215 - Financial Risk Management
Course Syllabus
Spring 2015 Semester

Course Overview

Techniques and methods for managing financial risk, including Value-at-Risk, ARIMA, time series forecasting, GARCH and volatility estimation, credit risk, credit derivatives, swaps, real options, scenario analysis, operational risk, liquidity risk, model risk, economic capital and RAROC, and weather and energy derivatives. Prerequisites: ENG MGT 5210 or equivalent.

Room and Meeting Time: Room G14, Library
Monday, 4:00 - 6:30 PM Central

Instructor: David Enke
enke@mst.edu
Office: Engineering Management 227
Phone: 573-341-4749
Hours: By appointment or when in office


Software: Microsoft Excel

Grading: 2 Take-home Tests (20% each) .................................................. 40%
            Homework Problems, Case Studies, Short Projects ............. 60%
            Total ............................................................................. 100%

Reading and homework assignments will be made in class. Late homework will be accepted for a maximum of three days after the original due date. An amount of 10% will be deducted from the homework for each day the assignment is late. Makeup tests will not be allowed after the assigned dates (except for extenuating circumstances). Makeup tests that result from schedule conflicts must be approved by the instructor at least one week prior to the test. In most instances the student will be expected to take any makeup tests early. The instructor reserves the right to drop a student from the course or deduct points from the student's final grade due to excessive unexcused absences.

Course Requirements

Students may need to use the Excel software package during the course. Students should also have had previous exposure to basic accounting, economics, statistics and finance. Please see the prerequisites listed in the course overview.
Course Material

Class notes, homework assignments and solutions, tests and solutions, and practice problem solutions will be posted on Blackboard (https://blackboard.mst.edu/webapps/login/). Students will be instructed during the first class period on how to utilize the Blackboard classroom web site. The lecture notes are in Adobe Acrobat pdf format. One, two, three, and six slide per page formats are available. You must have Adobe Acrobat Reader installed on your computer to view the slides. The lecture schedule (provided online) contains a listing of the topics discussed during each class period. Students will be notified by email, Blackboard, or alerted in class when significant changes are made to the lecture schedule.

Academic Dishonesty and the S&T Honor Code

The Missouri S&T Student Academic Regulations handbook describes the student standard of conduct relative to the System's Collected Rules and Regulations and offers descriptions of academic dishonesty, including cheating, plagiarism or sabotage (http://registrar.mst.edu/academicregs/index.html). Other informational resources for students regarding ethics, integrity and the student honor code can be found online at http://ugs.mst.edu/academicintegrity/studentresources-ai.

Special Needs

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with the instructor early in the semester. You will need to request that the Disability/Services staff send a letter to the instructor verifying your disability and specifying the accommodation you will need before your accommodation can be arranged. Disability Support Services (http://dss.mst.edu) is located in 203 Norwood Hall. Their phone number is 341-4211 and their email is dss@mst.edu.

Academic Alert

All faculty members are encouraged to utilize the online Academic Alert System at http://academicalert.mst.edu. The purpose of the Academic Alert System is to improve the overall academic success of students by improving communication among students, instructors and advisors; reducing the time required for students to be informed of their academic status; and informing students of actions necessary by them in order to meet the academic requirements in their courses.

Classroom Egress Maps

For your safety, please make yourself familiar with the egress map for our classroom, posted online at http://registrar.mst.edu/links/egress/.
Test Schedule

Topics for each test will be announced in class. The instructor reserves the right to change test dates to better accommodate the students and/or coverage of the material. Students will be provided ample warning of test date changes. Open book, open note take home tests are due by 4:00 pm central on the following dates:

Test 1: Due Monday, March 16th, 2015, by 4 pm central
Test 2: Due Monday, May 11th, 2015, by 4 pm central

Each take home test will be available online one week before it is due.

Grading Scale

The following grading scale will be used for graduate students. The instructor reserves the right to modify the scale.

90-100% (A letter grade); 80-89.9% (B); 70-79.9% (C); Below 70% (F)

Course Topics

Listed below are the topics that to be covered in ENG MGT 6215, given adequate time:

Text: Options, Futures, and Other Derivatives
Chapter 22: Value at Risk
Chapter 23: Estimating Volatilities and Correlations
Chapter 24: Credit Risk
Chapter 25: Credit Derivatives
Chapter 33: Swaps Revisited
Chapter 34: Energy and Commodity Derivatives
Chapter 35: Real Options
Chapter 36: Derivatives Mishaps and What We Can Learn from Them

Course Notes:
Scenario Analysis and Stress Testing
Model Risk
Liquidity Risk
Operational Risk
Economic Capital and Risk Adjusted Return on Capital
Course References

Some course material and in-class problems may come from the following sources: