Information about the Spring 2010 Final Exam for MBA 8135

Overview

The MBA 8135 Final Exam is difficult. It is a comprehensive exam. The exam is closed book and has no formula sheet. When compared to the class quizzes, the majority of the Final Exam questions would rank in the top 25% of difficulty. There is limited coverage of the easier material in the course. Your exam preparation should focus on the chapters that have the heaviest coverage of material. About 75% of the exam is based on Jaffe Chapter 4, 6, 8, and 13 and consider the detailed list later in this document.

A team of instructors designs the Final Exam. Thus, the style/wording of questions may differ from the style/wording used by Professor Hodges. All 8135 Professors use questions from many different sources during a given semester, thus questions will often be worded in a manner that differs from your textbook’s typical patterns. Having said that, with one exception, I have covered every topic and assigned questions and problems for every topic tested in the Final Exam.

There is one problem on the Final Exam, of a type not covered in our class. This problem is the value of a real option, calculated as a difference in NPVs. This material is in Chapter 7. Your exam will have a simplified version of a problem similar to End of Chapter problems 5, 17, 23, or 24. I will place an audio of this type of problem in Ulearn on Thursday, May 6. Here is a link to a video for this type of problem, http://www.westga.edu/~chodges/video/abandonoptionvaluation/intro.htm.

It is important that you try to do your best on the exam. Your course grade will be determined by your performance relative to the class, not your course average. Based on my perception of the Spring 2010 exam difficulty, the class average will be in the mid-70s. Since about 85% of the class will make either A or B in the course, this implies that one could have a Final Exam grade in the low 60’s and still make a B in the course.

Time and Place Information

The online Spring 2010 MBA 8135 Final Exam is scheduled for Saturday, May 8, from 12:30 p.m. to 2:30 p.m. The exam will take place in Room 203 of General Classroom Building (203 GCB) at the downtown Georgia State University campus (http://www.gsu.edu/map.html). The room should be open by noon. There are two classes taking the exam in the same room. We will share the room with Dr. Alfred Mettler’s MBA 8135 class.

Exam Information

There are currently 18 questions on the exam. The exam is similar in structure and difficulty to the exam on the Ulearn website. The exam is comprehensive,
thus material from any chapter is fair game. Based on the draft of the exam, you should expect the following. There are four multiple choice concept questions, nine multiple-choice calculation questions, and five calculations where you can show your work for partial credit. All multiple choice questions count 4 points each. There is one WACC problem that counts 12 points, one time value of money problem that counts 6 points, one risk and capital structure question that counts 8 points, one time value of money problem that counts 10 points, and a comprehensive capital budgeting cash flows question that counts 12 points. Note, while most of the questions with numerical answers are quantitative (i.e., require calculations), some may be solved using logic alone. THERE ARE NO ESSAY QUESTIONS ON THE EXAM.

Be aware that many concepts are covered in multiple chapters, for example, calculations involving the Present Value with uneven cash flows are from Jaffe Chapters 4, 5, 6, 8, 9, and 13. Just because a chapter is not listed does not mean we did not use any information from that chapter.

There are many questions that cross chapter boundaries. For example, the well-known relationship – that increasing the discount rate will decrease the present value – could be phrased as a time value of money, bond, stock, or capital budgeting question. For the questions below, the listed chapter is the chapter that we were considering when we wrote the question. Your classification of questions could differ from ours. There are usually multiple versions of the exams and your version of the exam will not be in the question order shown below. Here is the breakdown of question type by number.

**Number and Type of Question**

**Multiple Choice Questions**
1. Concept question from Jaffe Chapter 1
2. Question with Numerical Answer from Jaffe Chapter 4
3. Question with Numerical Answer from Jaffe Chapter 4
4. Question with Numerical Answer from Jaffe Chapter 4
5. Concept question from Jaffe Chapter 5
6. Question with Numerical Answer from Jaffe Chapter 6
7. Question with Numerical Answer from Jaffe Chapter 6
8. Question with Numerical Answer from Jaffe Chapter 7
9. Concept question from Jaffe Chapter 8
10. Question with Numerical Answer from Jaffe Chapter 8
11. Question with Numerical Answer from Jaffe Chapter 8
12. Question with Numerical Answer from Jaffe Chapter 9
13. Concept question from Capital Structure Handout

**Open-ended questions**
1. 6 point question with Numerical Answer from Jaffe Chapter 4
2. 10 point question with Numerical Answer from Jaffe Chapter 4
3. 12 point question with Numerical Answer from Jaffe Chapter 6
Exam Hints

MBA 8135 is a core course. As such, our objective is to assure that students have a “body of knowledge” about certain fundamental finance concepts. The Final Exam tests a student’s knowledge over these fundamental finance concepts. Although knowledge from other courses is helpful (e.g., sources and uses of funds in calculating initial cash flows for capital budgeting) for the Final Exam, we do not design questions to directly test your knowledge of any other material. MBA 8135 is a relatively new course, but the material covered, in the relevant chapters, will be quite similar to coverage in the previous versions of this course (MBA 8622, MBA 8130, and MBA 8230). I have incorporated most of the old final exam questions into our course quizzes. For this reason, I strongly suggest you review the old quizzes in Ulearn, with a focus on the most difficult questions and problems.

For quantitative questions, we test the same material each term. As an example, consider stock valuation. There are two models (CAPM and Constant Growth) with two types of valuation problems (constant growth and non-constant growth) and four variables that can possibly be calculated (dividend, price, growth rate, and required return on stock). We therefore have very few types of questions that we can ask. On almost every exam, one of the questions is a non-constant growth problem and one of the questions is a required rate of return. Another reason to study the old quizzes is to see the way in which questions are written.

There are usually no formulas listed on the exam. You are not allowed to program your calculator with formulas and thus there are certain formulas/methods/techniques you should memorize. In the list that follows, I have placed a (M), for Memorize, by types of calculations that are not normally directly solvable with the standard calculator. Here are some of the calculations that you might be asked to make; weighted returns/average (M), standard deviation (M), standard deviation of a 2-stock portfolio where you combine the stocks for each state of nature, present value, future value, annuity, annuity due, solving for interest rate and time, compounding periods other than annual, periodic to stated to effective interest rate conversions (M), amortized loan tables (M), perpetuities (M), CAPM (M), bond valuations, current yield, coupon rate, yield to maturity, Constant Growth stock valuation model (M), non-constant growth stock valuations, preferred stock valuation (M), WACC (M), NPV, IRR, Payback (M), PI (M), Initial Cash Flows for new projects or replacement (M), Operating Cash Flows for new or replacement projects (M), Terminal Cash Flows for new or replacement projects (M), adjusting cash flows for inflation, adjusting the discount rate for project risk. Some things that will not be tested are discounted payback period, MIRR, fractional time periods, put-call parity, binomial option valuation,
breakeven analysis, and the probability of returns type given a return and standard deviation questions (seen in Chapters 10 and 11).
Here is a list of some equations you should memorize for the Final Exam. The first two equations will be listed in the Spring 2010 Exam.

- **Standard Deviation of a 2-asset portfolio (given the individual standard deviations):**

\[
\sigma_{\text{Portfolio}} = \sqrt{x_A^2 \cdot \sigma_A^2 + x_B^2 \cdot \sigma_B^2 + 2 \cdot x_A \cdot x_B \cdot \sigma_A \cdot \sigma_B \cdot \text{Corr}_{A,B}}
\]

- **Hamada Equation**: \( \beta_L = \beta_U \cdot [1 + ((1 - T)(D/E))] \)

- **Capital Asset Pricing Model**:

\[
\bar{R}_i = \bar{R}_F + \beta_i \times (\bar{R}_M - \bar{R}_F)
\]

- **Perpetuity**: \( P = \frac{PMT}{r} \)

- **WACC**:

\[
r_{WACC} = \frac{S}{S + B} \times r_S + \frac{B}{S + B} \times r_B \times (1 - T_C)
\]

- **Constant growth model**:

\[
P_n = \frac{\text{Div}_{(n+1)}}{r - g}
\]

For the comprehensive capital budgeting question, we have an empty matrix that may help to solve the problem/enter your work.

### Some test technique hints:

1. If you do not understand a question, ask an instructor.
2. You may have difficulty in finishing the exam, within 2 hours. If you believe you may have a problem, “Cherry Pick” your questions save the longest and most difficult questions for last.
3. You will need formulas on the exam. Memorize the formulas you expect to need (based on the quizzes and the above list) and then upon receipt of the exam, write the formulas on the back of the exam.
4. Budget your time. You have 2 hours to complete the exam. While we design the exam to take about 100 minutes for the average student, there is always a group (usually 35-50%) of students that takes the entire 2 hours.
5. If the room is not in use before or after our Exam, we usually give about 15 extra minutes to complete the exam.

**Hope this helps and have fun.**