# **FNCE 611/614: Corporate Finance**

Spring 2016 Syllabus

This course will be co-taught by Prof. Stephan Dieckmann and Prof. Howard Kaufold. Prof. Dieckmann teaches FNCE 614 and Quarter 3 of FNCE 611 (January 11 through March 3), and Prof. Kaufold teaches Quarter 4 of FNCE 611 (March 14 through April 21.)

#### **Contact Information**

Prof. Stephan Dieckmann

Office: 2252 SHDH Phone: 215-898-4260

Email: sdieckma@wharton.upenn.edu

Office hours: Quarter 3, Monday and Wednesday, 3:00 – 4:30

Prof. Howard Kaufold

Office: 300 Huntsman Hall

Phone: 215-898-1439

Email: kaufold@wharton.upenn.edu

Office hours: Quarter 4, Tuesday and Wednesday, 4:30-6:00

Please make an appointment if you would like to meet with us outside of office hours. Teaching Assistants and TA office hours will be posted on the Canvas course page.

# **Course Description**

Investment and financing decisions are at the heart of corporate finance. A firm's financial manager, on one hand, is confronted with the universe of investment opportunities. She has to decide which real assets to purchase and projects to undertake, and which ones to forgo. On the other hand, she has to decide how to fund such investments, whether to raise cash from lenders or from shareholders, and what the best mix of debt and equity financing is. The goal of this introductory course is to provide students with the necessary skills to make such investment and financing decisions. Furthermore, this is the core course in the "micro-finance" area and serves as the basis for all more advanced courses.

You can think of this course having several parts. First, we study how to calculate the present value of cash flows, allowing us to determine the value of bonds and stocks, and to understand the basic rules for investment decisions. Second, a financial manager wants to know about a good measure of risk for their firm, and we formally introduce portfolio theory and the capital asset pricing model. Third, we give an overview of financing instruments, study how corporations issue securities, and discuss market efficiency. Fourth, we cover debt and payout policies and what ingredients to consider in the firm's capital structure decision. Last but not least, there will be an introduction to option markets.

## **Meeting Info**

Students enrolled in FNCE 614 meet 12 times, of which 11 are lectures and discussion plus 1 review session for the exam. Students enrolled in FNCE 611 meet 24 times, of which 22 are lectures and discussions plus 2 review sessions for the midterm and the final exam, respectively. Times are as follows:

```
FNCE 611/614 001 Tuesday/Thursday 9:00 - 10:20 SHDH 350 FNCE 611/614 002 Tuesday/Thursday 10:30 - 11:50 SHDH 350 FNCE 611/614 003 Tuesday/Thursday 1:30 - 02:50 SHDH 350 FNCE 611/614 004 Tuesday/Thursday 3:00 - 4:20 SHDH 350
```

We do not meet during the focused recruiting period, i.e. there is no class between January 21 and January 29. There is also no class between March 5 and March 13 because of Spring Break.

#### **Course Materials**

- 1. Lecture notes will be distributed electronically via Canvas. They will be made available to you prior to class and you might find it useful to bring them with you for taking notes. Please see the course schedule below for the sequence of topics.
- 2. The required textbook for the course is:

Principles of Corporate Finance, 11th Edition, by Richard Brealey, Stewart Myers, and Franklin Allen, McGraw-Hill

The book's way of presenting the material sometimes differs from the way it is done in the lecture notes. It is a very good textbook and will be helpful in mastering the material, as well as a general reference on the subject of corporate

finance. Our goal is to cover the material up to chapter 21, and we have indicated on the course schedules which book chapter corresponds to the respective topic. We will also post on Canvas which pages to read in preparation for each class. We will not explicitly cover part 3, i.e. chapters 10 - 12, in this introductory course, but you will have plenty of opportunities to study project analysis and agency problems in more advanced courses.

We also recommend the solutions manual for this textbook. End of chapter problems are a very good way to practice the material and test your knowledge. We will make recommendations to you about which end of chapter problems to focus on.

- 3. Announcements, problem sets, solutions, past exams, will also be made available via the Canvas course page.
- 4. If you find it helpful to see the material presented in different ways, we recommend the following textbooks:

Corporate Finance, 10th Edition, by Stephen Ross, Randolph Westerfield, and Jeffrey Jaffe, McGraw-Hill

Corporate Finance, 3<sup>nd</sup> Edition, by Jonathan Berk and Peter DeMarzo, Pearson

## Requirements

Students enrolled in FNCE 614 are expected to submit 3 problems sets and take one exam. Grades will be based on:

| Problem Sets | 30% |
|--------------|-----|
| Final Exam   | 70% |

Students enrolled in FNCE 611 are expected to submit 6 problems sets, and take one midterm and a final exam. Grades will be based on:

| Problem Sets | 20% |
|--------------|-----|
| Midterm Exam | 35% |
| Final Exam   | 45% |

Students have the option to switch between FNCE611 and FNCE614, in either direction. The deadline to inform us if you want to switch is March 2 at 5.59 pm, no exceptions.

#### **Exams**

FNCE 614 has a final exam on March 2; FNCE 611 has a midterm exam on March 2 and the final exam on May 3, respectively. All exams are mandatory. Please note that, in accord with the guidelines published by the MBA Program Office, there will be no rescheduling of exams to accommodate job interviewing, personal travel, etc. If an emergency or illness should force you to miss an exam, you must contact your academic advisor before the test is given. You will be allowed to take a makeup exam only if you have a physician's explanation for your absence.

Exams are cumulative, open-book, open-notes, and we will also provide you with a formula sheet. You should bring a calculator to the exam, but not a laptop computer. We do not allow verbal appeals of grades. Please provide a written statement to us as to why there is a problem. All re-grade requests must be submitted within one week after handing back the exams.

#### **Problem Sets**

The problem set postings and due dates are as follows:

| #1 | posting on January 19  | due on February 2  |
|----|------------------------|--------------------|
| #2 | posting on February 4  | due on February 16 |
| #3 | posting on February 16 | due on February 25 |
| #4 | posting on March 17    | due on March 24    |
| #5 | See explanation below  |                    |
| #6 | posting on April 14    | due on April 21    |

Problem Sets 1-4 and 6 can be solved in groups of up to three students and you can form groups among sections. Problem sets are due in class on the dates mentioned above; late submissions will not be accepted. Please submit the solutions in hardcopy form to be handed in as one write-up per group.

During two weeks of Q4 (Weeks of March 28 and April 4), Professor Kaufold will use a different approach to delivering the course material. You will be asked to view recorded lecture material online for approximately one hour before each class session, with class time dedicated to reviewing the lecture content, working

problems, and applying ideas to recent market events. In lieu of Problem Set 5, you will be asked to complete four short online quizzes after viewing the lecture material and before each of the class sessions over those weeks. These quizzes will be done individually (rather than in teams), and will carry in total the same grading weight as one problem set.

The purpose of the problem sets and quizzes is to increase your understanding of the material, provide early feedback, and help you prepare for the exams. Solutions to each problem set will be made available after your answers have been turned in. Graded problem sets will be returned to the Huntsman Hall mailfolders. Non-Wharton students, your problem sets will be returned to a file cabinet in the Finance Department, 2<sup>nd</sup> floor SHDH.

## Math for Business, Calculators, and Spreadsheets

Several of the mathematical aspects of this course are covered in Math for Business. You might find it useful to review the respective modules prior to class. You will need a calculator for this class. Ideally, this calculator is capable of financial functions such as Present Value, Internal Rate of Return, etc. Recommended financial calculators that can perform such functions are the HP 17bII+, HP 17BII or 19BII. If you do not use a financial calculator, then please make sure your calculator can perform the ln(x), exp(x), and (x)<sup>a</sup> functions. You may not use calculators with spreadsheet or download capabilities. Please invest the time required to learn the efficient use of your calculator, by the end of the first week of class. You should use the course as an opportunity to learn the basics of a spreadsheet program such as Microsoft EXCEL. All computations that we perform in this class can be carried out using such software. It will also be very helpful for solving some problem set questions if you familiarize yourself with the EXCEL tools Goal Seek and Solver, in particular if you do not own a financial calculator.

# Course Schedule for 614/611 Tuesday/Thursday classes in SHDH 350

| Class | Date   | Topic   | BMA   |
|-------|--------|---|-------|
| 1     | Jan 11 | Introduction to Corporate Finance                     | 1     |
| 2     | Jan 13 | Time Value of Money and Calculating Present Values    | 2     |
| 3     | Jan 19 | Valuing Bonds and Stocks                              | 3, 4  |
| 4     | Feb 2  | Valuing Bonds and Stocks                              | 3, 4  |
| 5     | Feb 4  | Valuing Bonds and Stocks                              | 3, 4  |
| 6     | Feb 9  | Net Present Value and Other Investment Criteria       | 5     |
| 7     | Feb 11 | Investment Decisions using the Net Present Value Rule | 6     |
| 8     | Feb 16 | Introduction to Risk and Return                       | 7     |
| 9     | Feb 18 | Portfolio Risk and Diversification                    | 7, 8  |
| 10    | Feb 23 | Capital Asset Pricing Model I                         | 8     |
| 11    | Feb 25 | Capital Asset Pricing Model II                        | 8     |
| 12    | Mar 1  | Review for Exam                                       |       |
|       | Mar 2  | Exam 6 – 8 pm   |       |
| 13    | Mar 15 | Cost of Capital                                       | 9     |
| 14    | Mar 17 | Market Efficiency I                                   | 13    |
| 15    | Mar 22 | Market Efficiency II/Financing Instruments            | 14,15 |
| 16    | Mar 24 | Payout Policy   | 16    |
| 17    | Mar 29 | Capital Structure I                                   | 17    |
| 18    | Mar 31 | Capital Structure II                                  | 17,18 |
| 19    | Apr 5  | Capital Structure III                                 | 18    |
| 20    | Apr 7  | Capital Structure IV                                  | 18    |
| 21    | Apr 12 | Investment and Financing Interactions                 | 19    |
| 22    | Apr 14 | Options I   | 20    |
| 23    | Apr 19 | Options II  | 21    |
| 24    | Apr 21 | Wrap-Up / Review for Exam                             |       |
|       | May 3  | Exam 6 – 8 pm   |       |

### **Ethics Matrix**

|                                   | Materials   |                            |               |                        |                        |                          |   | People                          |                                  |  |   |                           |
|-----------------------------------|---|----------------------------|---------------|------------------------|------------------------|--------------------------|---|---------------------------------|----------------------------------|--|---|---------------------------|
| FNCE 611/614<br>Corporate Finance | Approved calculator   | Laptop / other electronics | Summary sheet | Textbook / class notes | Past notes / summaries | Past exams / assignments | Internet content / other<br>outside materials | FNCE 611/614 Group <sup>1</sup> | Other student(s) in same section | Student(s) in other sections (same term) | Wharton student not taking<br>the class this term | Person outside of Wharton |
| ProblemSets                       | A   | A                          | A             | A                      |                        |                          |   | W                               | $D^1$                            | $\mathbf{D}^{1}$                         |   |                           |
| ExamPrep                          | A   | A                          | A             | A                      |                        | A                        |   | W                               | W                                | W  | W   | W                         |
| Exams                             | A   |                            | A             | A                      |                        | A                        |   |                                 |                                  |  |   |                           |
|                                   | A = Allowed material  W = Allowed to work together  D = Discussion of general concepts and procedures is allowed but no sharing of specific answers.  Shaded Cell = Not allowed |                            |               |                        |                        |                          | W = Allowed to work together                  |                                 |                                  |  |   |                           |
|                                   |   |                            |               |                        |                        |                          |   |                                 |                                  |  |   |                           |
|                                   |   |                            |               |                        |                        |                          |   |                                 |                                  |  |   |                           |

#### Other comments:

(1) Problem set write-ups may be done in groups of up to 3 students. General discussion with others in class allowed. NO SHARING OF SPECIFIC ANSWERS FOR PROBLEM SETS WITH OTHER WORKING GROUPS. Problem set groups may include students in different sections.

The information above covers many common situations but will not cover every circumstance. Remember:

The Wharton MBA Code of Ethics that you accepted requires, among other things, that you represent yourself and your work honestly, don't try to gain unfair advantage over other students, follow the instructor's guidelines and respect confidentiality of your work and the work of others.

Should you have questions, please contact your Ethics Representative or professor.