Northwestern University
Kellogg School of Management

FINC430 (Finance 1)
Summer 2018

SYLLABUS

Course description
Finance 1 covers managers' and investors' most fundamental finance decision: how to value a project or an asset. Managers must determine the value of building a factory, entering a new market, or purchasing an entire firm when deciding in which projects to invest. Similarly, individuals must assess the value of financial securities to decide how to invest their wealth. Finance 1 teaches methods for valuing projects or assets. These valuation tools lay the foundation for all work in capital markets and corporate finance.

Prerequisites
The prerequisites for this course are knowledge of probability and statistics through linear regression and accounting. These requirements may be satisfied with:
- Sufficient previous or concurrent DECS course work in statistics and econometrics
  - By the sixth week in the term, it is important that you know how to run a regression, preferably in Excel. One of the cases we will study requires you to run regressions and you may be expected to run a regression on your final exam.
- Either (i) prior or concurrent registration in Accounting 430 or (ii) sufficient previous course work in basic financial accounting.

Course readings
   This book is required. See textbook acquisition instructions posted on the Canvas website for details on how to acquire access to MyFinanceLab and a loose-leaf version of the text at significantly reduced prices.

2. Lecture slides, cases, and readings as assigned. Lecture slides and readings will be posted on the course website. Cases will be distributed via the Study. Net link on Canvas.

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a-oferr@kellogg.northwestern.edu

Teaching assistant: Udi Lewkowicz
ulewkowicz@gmail.com
Grading
Your grade in the course will be based on the maximum of the following two options:

<table>
<thead>
<tr>
<th>Component</th>
<th>Option A</th>
<th>Option B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual quizzes and assigned individual HW</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Group case studies</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Final exam</td>
<td>43%</td>
<td>63%</td>
</tr>
<tr>
<td>Class participation</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
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As indicated above, there are five components to your course grade.

1. **Individual quizzes**: There are quizzes and HW assignments to be completed individually. These are also in the form of an online Canvas quiz, which must be completed on Canvas on or before 9:30 AM on the day they are due. When you submit your quiz answers, Canvas will immediately tell you if your answers are correct. You may also take the quizzes as many times as you like. If you take the quiz multiple times, your highest score submitted before the due date/time will count towards your course grade. Solutions to the quizzes will be posted to the website.

2. **Group Case Studies**: The case assignments are group assignments. There should be at most four students per group. Please do not change groups during the quarter. You are responsible for choosing your groups on your own on Canvas and all groups must be chosen before the second class meeting. You must upload your case answers via the link to the case assignment on Canvas. Do not submit more than one set of answers per group. Unless otherwise specified, you should upload your case report as a word document. In general, I will not answer any questions about a case before it is turned in. If you are unclear about something, make an assumption, state this assumption clearly in your answer, and move forward with your solution. As long as your assumption is reasonable, then your approach will be acceptable. Discussions of the cases will take place during class, but no “solutions” will be provided. For each case, one member of each group must upload files to Canvas before 9:30 AM on the day they are due. Remember, these are real world cases, so not always there is one correct answer (though there are many wrong answers). We will often spend some time discussing these cases in detail in class. All students should come prepared to discuss these cases on the day the assignments are due. I recommend that you bring a printed copy of the case answers with you to class.

3. **Midterm Exam and Final Exam**: The midterm will be held during the sixth class. The midterm will cover the first half of the course. The final exam will be held during the exam week and will cover the entire course. If your score on the final exceeds your score on your mid-term, the mid-term will not be taken into account and the weight of the final will be equal to 63% of the final grade.

4. **Participation self-evaluation**: No later than Monday, September 3rd, all students must complete a participation self-assessment where you will be asked to evaluate your class participation according to the guidelines listed below. Students that do not complete the participation self-assessment on time will receive no credit for the class participation component of their own grade. To qualify for a participation grade you must satisfy or exceed ALL of the listed characteristics for the given grade.
<table>
<thead>
<tr>
<th>Participation Grade</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Regularly volunteered comments or asked questions that <em>other students found valuable</em>. In response to being called upon, always demonstrated preparedness. Always used name-card.</td>
</tr>
<tr>
<td>B</td>
<td>Often volunteered comments or asked questions that <em>other students found valuable</em>. In response to being called upon, generally demonstrated preparedness. Always used name-card.</td>
</tr>
<tr>
<td>B-</td>
<td>Infrequently volunteered comments or asked questions that <em>other students found valuable</em>. In response to being called upon, sometimes demonstrated lack of preparedness.</td>
</tr>
<tr>
<td>C</td>
<td>Never volunteered comments or asked questions that <em>other students found valuable</em>. In response to being called upon, demonstrated lack of preparedness.</td>
</tr>
<tr>
<td>F</td>
<td>In response to being called upon, demonstrated lack of preparedness. Occasionally disruptive to the learning environment of others.</td>
</tr>
</tbody>
</table>

**Calculation of final course grade**

The top 40% of students will receive an “A”, the next 50% will receive a “B”, and the bottom 10% will receive a “C” or lower. The finance department requires this grade distribution across all beginning finance classes.

**Additional rules regarding assignment submissions**

- *Late submissions will receive no credit.* Deadlines for this class are non-negotiable. If you have a question about a deadline, you should resolve your question sufficiently prior to the deadline so that you can complete the assignment by the due date.

- *All students within a study group will receive identical scores on group case submissions.* Responsibility for submitting the desired answers by the deadline is the joint responsibility of the entire group, regardless of how the group determines the allocation of the work.

**Additional availability**

Office Hours: the TA and I will have office hours Saturday from 12.30 to 1.15. In addition, we will be available by appointments on Saturday in the downtown campus and the rest of the week in Evanston. Please email me and or the TA to set up a time to meet. When requesting a meeting please try to do so at least 24 hours in advance and give us some guidance as to when you are available.

Email Policy: I will always try to respond to your e-mails within 48 hours. Please take this into account and plan accordingly. Always cc the TA when writing to me unless it is a personal issue.

Review Sessions and TA: the TA in this course is Udi Lewkowicz ([ulewkowicz@gmail.com](mailto:ulewkowicz@gmail.com)). Udi will hold review sessions before the midterm and before the final. These review sessions will be dedicated to covering practice problems and sample exams. If needed Udi will hold additional review sessions during the course. Udi is available by e-mail to answer questions and will be available for additional office hours as specified above. Please email him to set up a time to meet.
Classroom etiquette
As you know, Kellogg has established a series of guidelines to make sure that the classroom environment enhances the learning experience for all students. Please take the time to familiarize yourself with the revised Classroom Etiquette code.

http://www.kellogg.northwestern.edu/stu_aff/policies/etiquette.htm

Laptops: It is generally very distracting to other students and hinders class discussion when laptops are open during class. Therefore, please keep your laptops closed during class unless we are reviewing a case or working with an Excel file as part of the lecture.

Phones: Please turn off your phones while in the classroom. Also, please refrain from checking your e-mail or text messaging during class. You may not use electronic devices for non-class purposes (i.e. email, web-surfing) during class.

Seating: During the second-class session, please choose the seat you plan to sit in for the rest of the quarter. I will appreciate if you continue to sit in that seat each week.

Name Plates: Please bring your name plate to class and have it displayed throughout the quarter. This will help me to learn your names.

Class Material: The class notes, HW assignments, answers, and sample exams are the intellectual property of the instructor. You may not distribute class notes electronically or in any form to anyone outside of the class or outside of Kellogg. You may not duplicate these notes for use by your employers after graduating from Kellogg without my written consent.

Honor code
The first sentence of the Kellogg Honor code reads: “All students enrolled in a course offered by the Kellogg School of Management agree to abide by the Kellogg Honor Code.” If you are unsure of what this means, please read the honor code. You can find it at: http://www.kellogg.northwestern.edu/stu_aff/policies/honorcode.htm. If you are in doubt about whether something is acceptable under the honor code, please do not hesitate to ask me.

In particular, the following are considered honor code violations:
1. Consulting materials distributed in any other section of this course or any other Kellogg finance course.
2. Discussing cases with any individuals – including former students – other than those students in your current case group.
3. Sharing course materials with anyone at anytime. See below.
4. In future quarters, discussing any course assignment with students then enrolled in this course before those students’ due date.
5. Seeking or receiving any assistance with problem sets, quizzes, the midterm, or the final exam.

Access to course information via the web
Lecture slides, assignments, and course readings will be available on the course Canvas page. Grades will be entered into the electronic gradebook.
Student liaison

The liaison will:
- Be a sounding board for me on student related issues;
- Communicate to me any scheduling conflicts regarding assignments, classes, or exams;
- Organize lunches/dinners for interested students and me.

Please contact me if you are interested in serving as the class liaison.

You should always feel free to reach out to me with issues regarding class. Should you wish an anonymous route, you should feel free to reach out to the student liaisons.

Other

All course materials are the intellectual property of the instructor. You may not distribute class materials electronically or in any form to anyone – inside or outside of Kellogg. In particular, you may not share course materials with other students or with your employers after graduating from Kellogg.

Tentative Course Outline

Listed below are the topics and readings for each topic. ”BD” refers to the textbook by Berk and DeMarzo. Please read the corresponding material in the textbook prior to the discussion of the topic.
<table>
<thead>
<tr>
<th>Module</th>
<th>Topics</th>
<th>Chapters readings (BD)</th>
</tr>
</thead>
</table>
| 1.     | **Introduction & Discounted cash flows:**  
        - Course introduction  
        - Discounted cash flow concepts | 4-5  
        Recommended: 1-3 |
| 2.     | **Valuation of financial instrument (1) - Bonds:**  
        - Valuation of bonds  
        - Yield to maturity  
        - Duration  
        - Spot rates  
        - The yield curve and the term structure of interest rates  
        - Inflation linked financial instruments | 6, 30.4 (pages 1009-1011) |
| 3.     | **Introduction to capital Budgeting:**  
        - Investment decision rules  
        - NPV vs. IRR  
        - Choosing between projects | 7 |
| 4.     | **Valuation of projects and companies (2):**  
        - Forecasting the free cash flow  
        - Estimating the terminal value  
        - Free cash flow valuation | 8, 19.1-19.3, 19.5 (section on discounted cash flows only), 19.6 |
| 5.     | **Valuation of financial instrument (3) - Stocks:**  
        - Valuation of stocks  
        - The dividend discount model  
        - Valuation based on multiples | 9 |
| 6.     | **Risk and return (1)- Portfolio theory:**  
        - Definition of risk  
        - Understanding Diversification  
        - Portfolio optimization  
        - The Capital Market Line (CML) | 10.1-10.6, 11.1-11.6 |
| 7.     | **Risk and return (2)- The Capital Asset Pricing Model (CAPM):**  
        - The risk return tradeoff  
        - The security market line (SML) | 10.7-10.8, 11.7-11.8, 13.7-13.8 |
| 8.     | **Valuation (4)- Valuation with the CAPM:**  
        - Estimating the cost of capital  
        - Capital structure and the weighted average cost of capital (WACC)  
        - Levering and un-levering beta | 12 |
| 9.     | **Capital market Efficiency:**  
        - Information and capital markets | 13 |
| 10.    | **Additional Topics, if time allows.** | |