

Applications in Financial Management FNCE 4209

Professor:	Dr. Paul Gilson
Office:	Room 440 – BUT I WILL NOT BE THERE
Phone:	486-8177 (I WILL NOT BE IN MY OFFICE) 860 212 1099
Email:	Paul.Gilson@UConn.edu
Office Hours:	When we begin the semester, I am happy to meet outside. I have been told our room is free the class after ours, so if weather turns bad... Of course, we can always be virtual.

COURSE OBJECTIVE

An intermediate level course using cases i.e., problems faced by actual firms, to teach students how to apply financial management concepts and techniques to real-world situations.

COMMUNICATION

I will communicate grades using Blackboard. All other items will be given to you through shared folders. I will also use Microsoft Teams to communicate extensively with the group.

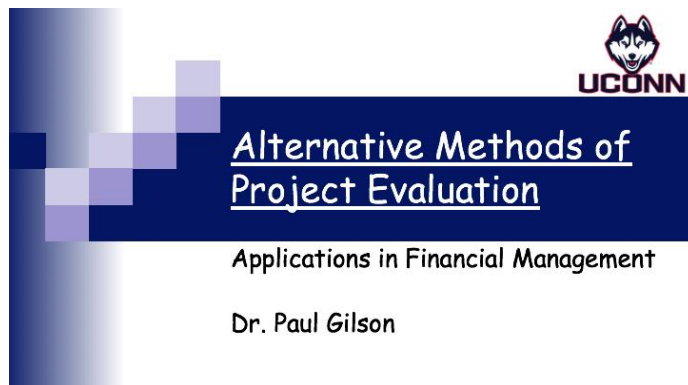
TEXTBOOK AND OTHER MATERIALS

There is no required textbook for this course. I will be using a great deal of CFA material – they suggest *Corporate Finance: A Practical Approach* - by Michelle R. Clayman, Martin S. Fridson, George H. Troughton. This would be a good accompaniment for the course.

Another classic text is *Corporate Finance by Ross, Westerfield and Jaffe*.

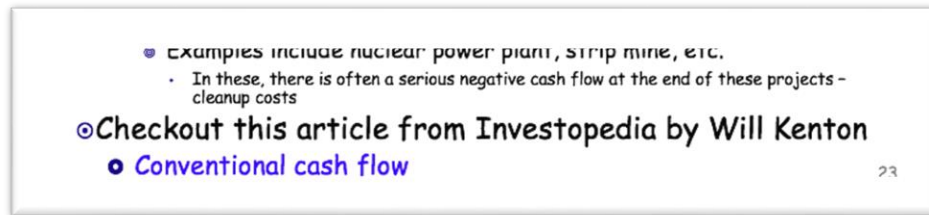
If you buy either, any reasonable edition would work.

The main document for each (sub) topic will be a “Topic PowerPoint” I will create and post. You should use these decks as your main source of information on a topic. It is unlikely I will cover an entire slide deck in class time – much information is background and easily understood by the diligent student. Rather, I will spend class time covering difficult or challenging topics or demonstrating worked examples. Often, I will create a slide deck for that particular class – I will post these decks before class, but it is not necessary to READ these decks before the particular class. The capture above is for one of the first sub-topics – the title slide of the Topic PowerPoint.



In these slide decks you will find various readings, often from Investopedia – you are expected to read those readings! Not wanting to offend senior students from UCONN, but please, when you read articles I reference, make sure you don't simply read. ALWAYS create a key takeaways list for any article you

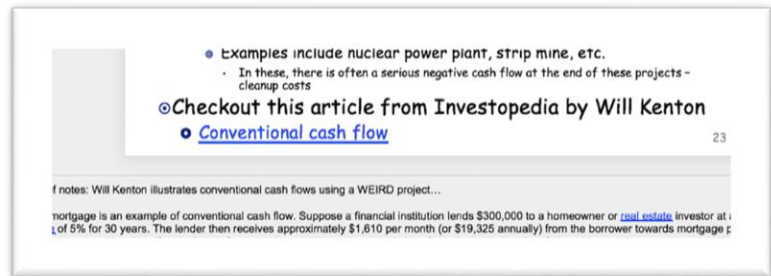
read. NOTE – most Investopedia articles have a “Key Takeaways” section; this is certainly a good start. But when reading an article I reference, make sure you understand the context –



why am I asking you to read this article given the concepts I was discussing in the slide deck?

MAKE SURE, you read the notes in notes view – I will often include additional contents in the notes of each slide.

I will tell the class which Topic PowerPoints to read before each week, and if you checkout the course outline below, you will see details of what to read and when!



Depending on the topic, I will also include PDFs or in some cases, Excel spreadsheets. This content, plus any other content I will share using One Drive.

COURSES REQUIREMENTS AND GRADING

Your grade for the course will be assessed based on a final exam, homework and projects. I have no requirements for attendance. Although I am always happy to see you in class it is entirely up to you as to whether or not you attend classes in-person, virtually, or asynchronously.

I envisage that your grade will be based 30-40% on a final exam, and 60-70% on homework and projects. I expect there to be 8-9 of these, thus each will be worth approx., 7-8% of your final grade. The difference between homework and projects is the following. For projects, I will assign teams of 4 to 5 students; teams will change each project. The team will hand in a single submission, and each team member will receive the same score. For projects, if possible, I will cover a similar problem in class; the student team will then work on a similar problem for the project.

For homework, students must submit a virtual report. Note: Although homework must be completed individually, it is acceptable (and encouraged) for you to discuss homework problems with fellow classmates if this helps you to learn the material. If you do so, you only need to submit one homework per team.

The final exam will be virtual, and likely time controlled – but I am open to student input. The exam will be MC, TF and short calculations.

There are no extra credit opportunities in this class.

Grades will be available through Blackboard.

At the end of the semester, I will assign a letter grade for each student base on the following rubric.

Grade Evaluation

- A Superior Performance
- B Above Satisfactory Performance
- C Satisfactory Performance
- D Very Poor Performance
- F Failure

It is your responsibility to make every effort to ensure you are present for the examination. Unexcused absences will result in a grade of 0%. If you have an excused absence (e.g. medically excused absence), please notify me as far in advance as possible and email me an electronic document as proof. Notifications received the day before or day of the exam will only be accepted in extreme cases.

If you have an excused absence for the day of the exam, my general policy is to have you complete a makeup examination. In such an event, I will provide an alternate time when the exam can be taken.

Cheating of any sort will not be tolerated and will result in a failure of the exam or assignment, deduction in the class participation grading component, and potential failure of the course.

A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation, and shall be subject to the sanctions and other remedies described in The Student Code. For details refer to http://www.dos.uconn.edu/student_code.html Appendix A section B.- Conduct Rules and Regulation item 1 - Violation of the Academic Integrity in Undergraduate Education and Research.

On February 2, 2009, the University Senate passed a motion on about religious observances which stipulated that "Students anticipating such a conflict should inform their instructor in writing within the first three weeks of the semester, and prior to the anticipated absence, and should take the initiative to work out with the instructor a schedule for making up missed work." For conflicts with final examinations, students should, as usual, contact the Office of Student Services and Advocacy (formerly the Dean of Students Office).

There are several policies that I consider important across all my classes. The policies governing the following topics can be found at the following links:

[Absences from Final Examinations](#)

[People with Disabilities, Policy Statement](#)

[Policy Against Discrimination, Harassment, and Related Interpersonal Violence](#)

[The Student Code](#)

Week	Topic	Materials and Comments	Class Topics
1	<p>1. INTRODUCTION</p> <p>2. CAPITAL BUDGETING</p> <p>Prereqs for Capital Budgeting.pptx (1)</p> <p>Examples for NPV and IRR.xlsx (1)</p>	<p>I will go over the format of the class, my expectations for work, how I expect the class to proceed</p> <p>There is no Topic PowerPoint for this “Topic 1”.</p> <p>In your prior studies you will likely have BRIEFLY covered the topic of Capital Budgeting; you probably estimated cash flows and used two methods to assess whether to invest in a project, NPV and IRR.</p> <p>In FNCE 4209 we will extend these ideas in three directions. BUT BEFORE WE DO, we must first “level the playing field” in terms of prereqs. There is likely a MASSIVE cross-section of “prior knowledge”. To that end, I have created PPT (1). It is a standalone document with examples and questions. The XLSX (1) contains answers to all the questions in this slide deck.</p> <p>Please read PPT (1) and with the XLSX (1) before our second class of this first week.</p> <p>AT END of the first week, the first homework “NPV and IRR Methods” goes LIVE. This is due by 5pm Friday of week 2.</p>	<p>Class 1: I will do the basic class introductions and logistics.</p> <p>Logistics FNCE 4209.pptx</p> <p>Class 2: In this class I will work examples from the topics of NPV and IRR. This is stuff you should have seen before.</p> <p>I will NOT be covering every slide in the Topic PowerPoint – that is your responsibility.</p> <p>Instead, I will use slide deck Class 2 Example.pptx and the spreadsheet Class 2 Example.xlsx to illustrate these concepts.</p>
2	<p>2. CAPITAL BUDGETING, CONT.</p> <p>Alternative Methods of Project Evaluation.pptx (2)</p> <p>Examples for MIRR and PI.xlsx (2)</p>	<p>As I noted above, we will extend Capital Budgeting in three directions. In the first, <i>Alternative Methods of Project Evaluation</i> we will consider two other methods of project evaluation; the MIRR and the PI. The first, MIRR will give us an alternative method of project evaluation, but almost as importantly, the MIRR will give us a better understanding of how the firm creates value. The second, PI, is really just NPV repackaged, BUT it is particularly useful in certain situations.</p>	<p>Class 3 and 4: In these two classes, I will demonstrate worked examples for these new techniques. I will use slide deck Class Alt Meth Example.pptx and the spreadsheet Class Alt Meth Example.xlsx to illustrate these concepts.</p>

Week	Topic	Materials and Comments	Class Topics
		<p>Please read PPT (2) and XLSX (2) before class of this second week.</p> <p>AT END of the second week, the second homework “MIRR and PI Methods” goes LIVE This is due by 5pm Friday of week 3.</p> <p>AT END of this week, the first homework “NPV and IRR Methods” is due. Please submit by 5pm Friday of week 2 – this week.</p>	
3	<p>2. CAPITAL BUDGETING, CONT.</p> <p>Risk Analysis in Project Evaluation.pptx (3)</p> <p>Risk Analysis in Project Evaluation.xlsx (3)</p>	<p>In the second of three sub-topics, we will add the dimension of risk analysis to our capital budgeting techniques. Here is the problem, when you see questions involving cash-flow forecasts, we often ignore the fact that these cash-flows are <i>uncertain</i>. This leads us to mistake in believing our calculated answers, NPV, IRR, MIRR, etc., are certain – BAD MISTAKE. In this sub-section we tackle that issue by adding the dimension of uncertainty or risk to our evaluation metrics,</p> <p>Please read PPT (3) and refer to XLSX (3) where necessary before our first class of this week.</p> <p>AT END of the third week, the second homework “MIRR and PI Methods” is due. Submit your work by 5pm Friday of week 3 – this week.</p> <p>This work requires significant Excel work, and a knowledge of statistics. For that reason, the testing in this section will be a team project – in that way there is a better chance of the team having the required skills.</p> <p>AT END of the third week, the first project “Risk Analysis in Project Evaluation” goes LIVE. This is due by 5pm Friday of week four, next week.</p>	<p>Class 5 and 6: As you will see when you pre-read the Topic PowerPoint, this topic is very “hands-on” or practical in nature. Therefore, I will demonstrate the material in class using an example – similar to the team project you will tackle.</p> <p>In this way, I can demonstrate the Excel skills and help you with the statistics and finance concepts. REMEMBER, you have all the skills necessary ENTERING this topic – the techniques merely pull everything together.</p> <p>I will use slide deck Class Risk Analysis Example.pptx and the spreadsheet Class Risk Analysis Example.xlsx to illustrate these concepts.</p> <p>We will tackle Break-Even concepts in class 5. In class 6, we will look at sensitivity analysis: Sensitivity Analysis Class Example.xlsx</p>

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4	<p>2. CAPITAL BUDGETING, CONT.</p> <p>Other Issues in Project Evaluation.pptx (4)</p> <p>Other Issues in Project Evaluation.xlsx (4)</p>	<p>This subtopic probably doesn't require a full week. There are a few (three or four) small ideas and techniques.</p> <p>Please read PPT (4) and refer to XLSX (4) where necessary before our first class of this week.</p> <p>AT END of the fourth week, the third homework "Risk Analysis and Other Issues" goes LIVE. This homework is a mixture of the simpler ideas in the prior subtopic of Risk Analysis plus the ideas from the current Topic PowerPoint, Other Issues. This is due by 5pm Friday of week five, next week.</p> <p>AT END of fourth week, the first project "Risk Analysis in Project Evaluation" is due. Please submit virtually by 5pm Friday of week 4 – this week.</p>	<p>Class 7: As I noted in the comments, this week's subtopic is relatively short. That is lucky as in my experience we will need class 7 to finish last week's topic with a look at scenario analysis. Scenario Analysis Class Example.pptx and the spreadsheet Scenario Class Example.xlsx</p> <p>Class 8: Whether I give hints in class 7 or 8, I will demonstrate worked examples for the new techniques in this Topic PowerPoint. I will use slide deck Class Other Issues Example.pptx and the spreadsheet Class Other Issues Example.xlsx to illustrate these concepts.</p>
5	<p>3. OPTION VALUATION IN CORPORATE FINANCE</p> <p>Option Basics.pptx (5)</p> <p>Option Valuation.pptx (6)</p> <p>Option Valuation.xlsx (5)</p>	<p>This is a very large topic – we will be covering a couple of subtopics, and there is various prereq., material we must cover. That is the focus of this week. The material in the two Topic PowerPoint is meant as a refresher on options.</p> <p>Please read PPTs (5) and (6) before our first class of this week – refer to the accompanying spreadsheet (5) where necessary.</p> <p>AT END of fifth week, the third homework "Risk Analysis and Other Issues" is due. Please submit virtually by 5pm Friday of week 5 – this week.</p> <p>AT END of the fifth week, the fourth homework "Options – Basics and Valuation" goes LIVE. This homework is meant to test you prereq knowledge – kinda an incentive to diligently tackle to PPTs (5) and (6). This is due by 5pm Friday of week six, next week.</p>	<p>Class 9 and 10: There is a great deal of material in the two slide decks I require you to read for this week. Although much of the material is prereq., I do understand that our range of skills and knowledge is varied. Therefore, during class this week, I will tackle some of the techniques MOST important to later classes through a series of worked examples.</p> <p>I will use slide deck Option Prereq Example.pptx and the spreadsheet Option Prereq Example.xlsx to illustrate these concepts.</p>

Week	Topic	Materials and Comments	Class Topics
6	<p>3. OPTION VALUATION IN CORPORATE FINANCE, CONT.</p> <p>Introduction to Real Options and Strategy.pptx (7)</p> <p>Real Options and Corporate Finance.pptx (8)</p> <p>Real Options and Corporate Finance.xlsx (6)</p>	<p>In project evaluation so far, our projects have the same basic unrealistic(?) structure: The firm decides whether to invest or not at $t = 0$, and if the decision is INVEST, then the project begins and proceeds as planned – the manager who evaluated the project, her work is done. MANY projects do not follow this structure, instead, these projects can be modified as the project progresses.</p> <p>We will see that these projects are better valued using option pricing. And we will see that these types of projects appear everywhere in practice – real options will allow us to see the “project-world” through new eyes.</p> <p>This week’s topic is an introduction, or an overview of Real Options.</p> <p><i>Please read PPT (7) before our first class of this week. As you will see below, I will cover PPT (8) this week and the next. In class I will cover much of the calculation concepts with examples. Therefore, read PPT (8) before the second class of this week, but focus on the conceptual and discussion content.</i></p> <p><i>AT END of sixth week, the fourth homework “Options – Basics and Valuation” is due. Please submit virtually by 5pm Friday of week six – this week.</i></p>	<p>Class 11: Since this is a new topic to most students, I will spend time discussing Real Options. I will not cover the entire slide deck – instead, I will hit the difficult points.</p> <p>Real Options – Class Overview.pptx</p> <p>Class 12: I will set the framework for the next subtopic by explaining how we “map”, real options in the real world to option pricing methods.</p> <p>I will also begin to value real options in a few class examples – this will be continued during the following week.</p> <p>The slide deck for this class is:</p> <p>Real Options – Applications.pptx</p> <p>The accompanying spreadsheet is:</p> <p>Real Option Examples.xlsx</p>
7	<p>3. OPTION VALUATION IN CORPORATE FINANCE, CONT.</p> <p>Real Options and Corporate Finance.pptx (8), cont.</p>	<p>We continue this week pricing real options. We also extend our ideas to more strategic viewpoints. We will consider the management of portfolios of real options.</p> <p><i>You should have read the more conceptual ideas from PPT (8) last week. Before our first class of this</i></p>	<p>Class 13: I will continue to value real options in a few class examples – this will be continued from the previous week, using previous weeks material.</p> <p>Class 14: We extend these ideas to portfolios of real options – how can we</p>

Week	Topic	Materials and Comments	Class Topics
		<p>week, please return and review the problems and solutions in this slide deck and the spreadsheet.</p> <p>I find that at this stage some students can struggle with the content. For that reason, the testing in this section will be a team project – in that way there is a better chance of team learning occurring (or misery loves company!).</p> <p>AT END of week seven, the second project “Real Option Applications” goes LIVE. This is due by 5pm Friday of week eight, next week.</p>	<p>manage these portfolios to maximize value.</p> <p>The slide deck for this class is: Real Options – Management.pptx</p> <p>The accompanying spreadsheet is: Real Option Portfolio Examples.xlsx</p>
8	<p>3. OPTION VALUATION IN CORPORATE FINANCE, CONT.</p> <p>Option Features of Securities.pptx (9)</p> <p>Option Features of Securities.xlsx (7)</p>	<p>Later in the semester, we will study financial leverage and capital structure. This current topic is a bridge between options, and the work in these later topics.</p> <p>As we will see, many securities have embedded option-like features. This week, we will use the option pricing techniques we have been using for the last two weeks and apply them to value these securities.</p> <p>Please read PPT (9) before our first class of this week – refer to the accompanying spreadsheet (7) where necessary.</p> <p>AT END of week eight, the second project “Real Option Applications” is due. Please submit virtually by 5pm Friday of week 8 – this week.</p>	<p>Class 15: I will cover the more difficult concepts in this first class: Class Material – Option Features.pptx</p> <p>Class 16: This class will involve me solving some of the classic problems in this area: I will use slide deck Option Features Example.pptx and the spreadsheet Option Features Example.xlsx to illustrate these concepts.</p>
9	<p>4. MEASURES OF LEVERAGE</p> <p>Operating Leverage.pptx (10)</p> <p>Financial Leverage.pptx (11)</p> <p>Leverage.xlsx (8)</p>	<p>As noted by the CFA: “Leverage is the use of fixed costs in a company’s cost structure. Operating leverage relates to the company’s operating cost structure. Financial leverage relates to the company’s capital structure. A company’s use of leverage affects its risk and return. [Furthermore,] operating leverage and financial leverage provide insight into a</p>	<p>Class 17: In the first class, we will work various problems involving operating leverage – goal being to show how decisions on operational strategy affect profitability.</p> <p>Operating Leverage Examples.xlsx</p>

Week	Topic	Materials and Comments	Class Topics
		<p>company's business and its future. Leverage helps us understand a company's future cash flows and the risk associated with those cash flows and, hence, its valuation."</p> <p>In this topic, we will consider ways to measure leverage, and will consider the implications of leverage to the firm's business.</p> <p>Please read PPT (10) before the first class and (11) before our second class of this week. MUCH of the material is quantitative/calculation or conceptual ideas requiring spreadsheet skills. PLEASE focus on the conceptual discussion material – I will illustrate tougher problems in class.</p> <p>AT END of the ninth week, the fifth homework "Leverage" goes LIVE. This is due by 5pm Friday of week ten, next week.</p>	<p>Class 18: The second class has similarity to the first BUT with financial leverage, we have ways to measure risk directly – and thus, in class I will demonstrate methods of risk measurement.</p> <p>Financial Leverage Examples.xlsx</p>
10	<p>5. CAPITAL STRUCTURE</p> <p>Capital Structure.pptx (12)</p>	<p>Capital structure refers to the mix of debt and equity by which the firm finances its operations. We will study various theories that attempt to explain the mix that firms choose. The implication for the value of the firm will be considered.</p> <p>Please read PPT (12) before our first class of this week.</p> <p>AT END of week ten, the fifth homework "Leverage" is due. Please submit by 5pm Friday of week 10 – this week.</p> <p>Also, AT END of the tenth week, the sixth homework "Capital Structure" goes LIVE. This is due by 5pm Friday of week 11, next week.</p>	<p>Class 19 and 20: I will spend time in class tackling the practical aspects of this section. I find this material can be kinda "dry". Therefore, my class material will spend time looking at real world applications and illustrations – try to bring some real-world light into this "stodginess".</p> <p>Class Material – Capital Structure.pptx</p>

Week	Topic	Materials and Comments	Class Topics
11	<p>6. COST OF CAPITAL. Cost of Capital - Overview.pptx (13) Cost of Equity.pptx (14)</p>	<p>Students will have been introduced to the WACC in FNCE 3101 and many other FNCE courses. In this topic we will consider various issues that arise when measuring WACC in practice. This is a LONG topic and may well extend over three weeks – to that end, I have left the week after thanksgiving free.</p> <p>In this first week, I will give an overview of the topic – why we need cost of capital, and how we use them. An important idea in this slide deck is the idea of discount rate, and how that is different from cost of capital. I will also begin a discussion of cost of equity. This topic will continue into the following week.</p> <p>Please read PPT (13) before our first class of this week. Read PPT (14) before the second class but focus on conceptual discussion points.</p> <p>AT END of week 11, the sixth homework “Capital Structure” is due. Please submit by 5pm Friday of week 11 – this week.</p>	<p>Class 21: I will spend class illustrating situations where a cost of capital is needed – I will highlight the various pitfalls and dangers in each case.</p> <p>Class Material – Cost of Capital.pptx</p> <p>Class 22: I will cover the various ways of estimating cost of equity through class examples. I will spend much time on beta and its measurement.</p> <p>Cost of Equity Examples.pptx Cost of Equity Examples.xlsx</p> <p>The material will continue into next week...</p>
12	<p>6. COST OF CAPITAL, CONT. Cost of Equity.pptx (14), cont. Cost of Capital - WACC.pptx (15)</p>	<p>This week we will finish our analysis of cost of equity and pull everything together in WACC.</p> <p>Please read PPT (15) before our first class of this week.</p> <p>AT END of the 12th week – this week, the third project “Cost of Capital” goes LIVE. This is due by 5pm Friday of week 14, the week after Thanksgiving.</p>	<p>Class 23: I will finish up the cost of equity work begun the previous week.</p> <p>Class 24: I will use this class to prepare a cost of capital analysis for a project – much in the same way as you will in the third project.</p> <p>Cost of Capital Example.xlsx</p>
13	<p>THANKSGIVING WEEK <small>THANKSGIVING WEEK</small></p>	<p>YYYYYAAAAYYYYYYY</p>	<p>None</p>

Week	Topic	Materials and Comments	Class Topics
14	8. TBD. <small>8. TBD</small> TBD.pptx (16)	I have left this week open – I may have to help you with the project you are working on this week.	Class 25 and 26: TBD

The final exam will cover all material and is during the regularly scheduled time during exam week.