

FIN 4934
Applications of Financial Modeling

Course Syllabus
Spring 2018 Term

COURSE INSTRUCTOR

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COURSE LOCATION

FIN 4934 is being taught as an Electronic Platform (recorded) class. The class is taught in Heavener Hall, Room 150, every Monday and Wednesday, during Periods 3-4 (officially, 9:35-10:25 AM & 10:40-11:30 AM, but we will take only a short break between the two periods). Students are encouraged to attend the live sessions and actively participate. Seating is limited to 55 students and is on a first come, first served basis.

COURSE OVERVIEW AND OBJECTIVES

Purpose: The goal for this course is to develop the skills needed to use and create intricate spreadsheet models, geared toward the business community. The course will be project based, with a focus on mortgage-backed securities, securities modeling, financial statement cash flow modeling, and derivative modeling.

COURSE PREREQUISITE

FIN 4243 and FIN 4504, or equivalent courses, as approved by the College's Undergraduate Programs Office, Room 267 David Stuzin Hall, Phone: 273-0165.

COURSE MATERIALS TO PURCHASE FROM BOOKSTORE / ONLINE

The materials for the course will be:

1. Laptop/Excel. You must have and bring a Windows-based laptop to class that has Excel. Apple will not work, since you cannot run macros in Mac OS.
2. You will need simulation software. You have two several:
 - a. Simtools by Roger Myerson. This is an older simulation package developed by Nobel Laureate Roger Myerson. This can be accessed at this [link](#).
 - b. Crystal Ball. You can download a 30-day trial from Oracle. This can be accessed at this [link](#).
3. Coursepack from Harvard Business School Press. Instructions will be available on the course site in E-Learning.
4. Lecture Notes, available in the E-Learning course website.
5. A variety of chapters and full textbooks will be utilized throughout the term. All of them will be freely available through the UF libraries.

COURSE GRADES

Course grades will be calculated using points from each project. Our goal this term is to complete 6 projects. Each of the projects will have a few components, with different requirements, deadlines, and point assignments. Also, each of the 6 projects will have a peer review component.

Course grades will be based on the following numeric scale:

Minimum Points	Course Grade
90%	A
87%	A-
84%	B+
80%	B
77%	B-
74%	C+
70%	C

67%	C-
64%	D+
60%	D
57%	D-

The grade cutoffs may be adjusted down, particularly if assignments are more difficult than expected. Grade cutoffs will never be increased. Student grade information will be maintained in the Gradebook function in E-Learning.

COURSE TEAM PROJECTS

Course projects will be completed in teams, usually of 4 or 5 members. You will be assigned to one team for the first three projects, up to spring break. And then you may be assigned to a different team for the second half of the course. Projects deliverables will be uploaded/posted to E-Learning (which will list the exact date and time due). Part of the grading process is a peer review of the project.

These projects are expected to be professional work. Presentation is important. At a minimum:

- Where required, all text should be typed and presented in a case-like format.
- Spreadsheets and graphs should fit on one page or separated in a logical manner. They should be visually appealing, easy to read and incorporated into the text.
- You should include a cover page/tab with each person's name and project title.
- You should have subsections labeled with brief descriptions immediately preceding the spreadsheet and qualitative analysis.
- All spreadsheets should be labeled with a title and description.

In general, I should be able to read through the project and follow the analysis easily without referencing the assignment.

The project details may change during the course of the term. But, the plan right now is for the following projects:

1. Valuation model for an MBS (300 points total)

You will be given the layout for a MBS issued by Freddie Mac. Your job is to develop a valuation of the tranches. The primary deliverable is the Excel spreadsheet. A 1-page (or so) write-up will be required to explain tranches that are complicated and deserve some discussion.

2. Performance reporting and risk evaluation (150 points total)

For this project, your team will be given a Harvard case about a small asset management firm. Your job is to develop a 1-page (single-sided or double-sided, up to you) handout that the firm would use to summarize its investment philosophy and performance for the two funds it operates. These are known as “tear sheets”. You can (kind of) see examples of such 1-page documents by running a search for a “sample tear sheet” on any of the internet search engines.

This is likely the first time many of you have tackled such an assignment. Your primary job is to get the numbers right – calculate the various portfolio fund performance measures as outlined in the case (correctly) and think about how to present them in a meaningful way. This will be an intermediate deliverable for this project.

More importantly, I want to see the performance report directly tied to the spreadsheet. If I update numbers on the spreadsheet, the performance report is updated as well. From there, develop bells and whistles to make the spreadsheet and report more usable and user-friendly.

The deliverable is the spreadsheet and the report that the spreadsheet creates.

3. Additional Funds Needed model (150 points total)

You will be given the financials and other relevant data for a corporation and/or a scenario. The project involves developing a model to determine the funding needs of the company. Valuation impact based on using debt versus equity will be examined. The deliverable is a 2-3 page executive summary of the results and scenarios. Results from your Excel spreadsheet should be incorporated as Exhibits, Tables, and/or Charts. The full spreadsheet will also be uploaded.

4. DCF / Pitch Update (150 points total)

Your team will be responsible for researching a firm and developing a DCF valuation of the firm. Then, your team will update a Powerpoint “pitch” presentation. The deliverable will be the DCF valuation and the PPT presentation.

Several firms will be selected in advance, and several teams will be assigned to each firm. Grading will be head-to-head against the other teams working on the same firm.

5. VBA (100 points total)

Details and deliverables TBA.

6. Creative case development/presentation and model (150 points total)

For the final project, your team will develop a spreadsheet model of your choice. Your team will develop the project scope and deliverables, and your team will present your project to the class via a 10-minute presentation in class. The deliverables will be the presentation (50 points) and spreadsheet (100 points, including the peer evaluation).

Note the dates of the presentations. Although this is an EP course, at least one team member must be present on the date of your team's presentation to make the presentation. All team members do not need to be present.

For all cases, peer evaluations (for part of each project) are required. A 50-point penalty will be assigned if this is not completed and submitted online ontime. Needless to say, peer evals are a critical component of this class.

LYNDA.COM

Part of the goal of this course is to increase your Excel skills. In fact, to do well, you need to have some skills developed. If you find the first few lectures difficult to follow due to the Excel, UF has licensed Excel training videos from Lynda.com. This includes 8+ hour "introductory" videos on Excel.

Access is available on the UF website: <http://elearning.ufl.edu/>

STUDENTS WITH DISABILITIES

Students requesting accommodations for their disability must first register with the Dean of Students Office. The Dean of Students Office will provide documentation/forms to the student, who must then provide the documentation/forms to Dr. Banko. Please note that the Dean of Students Office requires a 7-10 day lead time to process your request after they receive the form back from you.

More information is available on the DRC website: <http://www.dso.ufl.edu/drc/>

SCHEDULE

Week One		
Date	Day	Assignment / Activity
1/8/2018	Monday	Introduction, syllabus, course example
1/9/2018	Tuesday	
1/10/2018	Wednesday	Project 1: MBS
1/11/2018	Thursday	
1/12/2018	Friday	
1/13/2018	Saturday	
1/14/2018	Sunday	

Week Two		
1/15/2018	Monday	University: Martin Luther King Day - No Classes
1/16/2018	Tuesday	
1/17/2018	Wednesday	Project 1: MBS
1/18/2018	Thursday	
1/19/2018	Friday	Project 1-1 due: Practice Peer Review
1/20/2018	Saturday	
1/21/2018	Sunday	

Week Three		
1/22/2018	Monday	Project 1: MBS
1/23/2018	Tuesday	
1/24/2018	Wednesday	Project 1: MBS
1/25/2018	Thursday	
1/26/2018	Friday	Project 1-2 due: MBS Correction
1/27/2018	Saturday	
1/28/2018	Sunday	

Week Four		
1/29/2018	Monday	Project 1: MBS
1/30/2018	Tuesday	
1/31/2018	Wednesday	Project 1: MBS
2/1/2018	Thursday	
2/2/2018	Friday	Project 1-3 due: Initial MBS Build
2/3/2018	Saturday	
2/4/2018	Sunday	

Week Five		
2/5/2018	Monday	Project 1: MBS / VBA (intro)
2/6/2018	Tuesday	
2/7/2018	Wednesday	Project 1: MBS / VBA (intro)
2/8/2018	Thursday	
2/9/2018	Friday	Project 1-4 due: Final MBS Build
2/10/2018	Saturday	
2/11/2018	Sunday	

Week Six		
2/12/2018	Monday	Project 2: Portfolio Optimization
2/13/2018	Tuesday	
2/14/2018	Wednesday	Project 2: Portfolio Optimization
2/15/2018	Thursday	
2/16/2018	Friday	Project 1-4 due: Peer Evaluation
		Project 2-1 due: Portfolio Statistics
2/17/2018	Saturday	
2/18/2018	Sunday	

Week Seven		
2/19/2018	Monday	Project 2: Portfolio Optimization
2/20/2018	Tuesday	
2/21/2018	Wednesday	Project 2: Portfolio Optimization
2/22/2018	Thursday	
2/23/2018	Friday	Project 2-2 due: Tear Sheet
2/24/2018	Saturday	
2/25/2018	Sunday	

Week Eight		
2/26/2018	Monday	Project 3: AFN w/ Polar Sport
2/27/2018	Tuesday	
2/28/2018	Wednesday	Project 3: AFN w/ Polar Sport
3/1/2018	Thursday	
3/2/2018	Friday	Project 2-2 due: Peer Evaluation
		Project 3-1 due: Initial Polar Sport Build
		Teammate Evaluation due
3/3/2018	Saturday	
3/4/2018	Sunday	

Week Nine		
3/5/2018	Monday	University: Spring Break: No Classes
3/6/2018	Tuesday	University: Spring Break: No Classes
3/7/2018	Wednesday	University: Spring Break: No Classes
3/8/2018	Thursday	University: Spring Break: No Classes
3/9/2018	Friday	University: Spring Break: No Classes
3/10/2018	Saturday	
3/11/2018	Sunday	

Week Ten		
3/12/2018	Monday	Project 3: AFN w/ Polar Sport
3/13/2018	Tuesday	
3/14/2018	Wednesday	Project 4: DCF, Valuation, and Presentation
3/15/2018	Thursday	
3/16/2018	Friday	Project 3-2 due: Final Polar Sport Build
3/17/2018	Saturday	
3/18/2018	Sunday	

Week Eleven		
3/19/2018	Monday	Project 4: DCF, Valuation, and Presentation
3/20/2018	Tuesday	
3/21/2018	Wednesday	Project 4: DCF, Valuation, and Presentation
3/22/2018	Thursday	
3/23/2018	Friday	Project 3-2 due: Peer Evaluation
3/24/2018	Saturday	
3/25/2018	Sunday	

Week Twelve		
3/26/2018	Monday	Project 5: VBA
3/27/2018	Tuesday	
3/28/2018	Wednesday	Project 5: VBA
3/29/2018	Thursday	
3/30/2018	Friday	Project 4 due: DCF / Pitch Update
3/31/2018	Saturday	
4/1/2018	Sunday	

Week Thirteen		
4/2/2018	Monday	Project 5: VBA
4/3/2018	Tuesday	
4/4/2018	Wednesday	Project 5: VBA
4/5/2018	Thursday	
4/6/2018	Friday	Project 4 due: Peer Evaluation
		Project 5 due: VBA Project
4/7/2018	Saturday	
4/8/2018	Sunday	

Week Fourteen		
4/9/2018	Monday	Project 6: Creative Project
4/10/2018	Tuesday	
4/11/2018	Wednesday	Project 6: Creative Project Presentations: Teams 1-8
4/12/2018	Thursday	
4/13/2018	Friday	Project 5 due: Peer Evaluation
4/14/2018	Saturday	
4/15/2018	Sunday	

Week Fifteen		
4/16/2018	Monday	Project 6: Creative Project Presentations: Teams 9-16
4/17/2018	Tuesday	
4/18/2018	Wednesday	Project 6: Creative Project Presentations: Teams 17+
4/19/2018	Thursday	
4/20/2018	Friday	Project 6 due: Creative Project
4/21/2018	Saturday	
4/22/2018	Sunday	

Week Sixteen		
4/23/2018	Monday	Project 6 due: Peer Evaluation (no class)
4/24/2018	Tuesday	
4/25/2018	Wednesday	University: Last Day of Classes (no class)
4/26/2018	Thursday	University: Reading Days - No Exams or Classes
4/27/2018	Friday	University: Reading Days - No Exams or Classes
4/28/2018	Saturday	University: Start of Final Exams
4/29/2018	Sunday	