

UNIVERSITY OF CALIFORNIA, DAVIS
GRADUATE SCHOOL OF MANAGEMENT
UPDATED SYLLABUS for Spring 2020

MGP/B-205: Financial Theory and Policy

Sacramento MBA: Fri (odd) 2:00pm - 9:00pm Location: 1204 UCDMC Ed Build'g
Bay Area MBA: Sat (even) 9:00am - 4:00pm Location: 1503 Bishop Ranch

Contact Information

Instructor: Joe Chen
Office: 3216 Gallagher Hall
Office Hours: Tuesdays 1:30pm-2:30pm (or by appointment)
e-mail: chenjs@ucdavis.edu
Course website: on Canvas (<http://canvas.ucdavis.edu>)
AND on Pearson's MyLab (<http://www.pearson.com/mylab>)
Teaching Assistant: (none)

Course Objectives

This is an introductory course in Finance designed primarily to address the needs of first-year students in an MBA program. The objective of this course is to introduce theory and practice of financial decision making. An emphasis is placed on understanding investment and financing decisions from the point of view of a corporation (Corporate Finance), but the principles are applicable to financial decision making in any other context. Major topics include evaluation of investment projects (net present value calculations, investment rules, and valuations), understanding capital markets (interest rates, stock markets, and cost of capital), and financing decisions (capital structure, manager incentives, and payout policies). Emphasis will be put on development of techniques that should be part of the tool kit of students taking additional courses in Finance.

Prerequisites

- The ability to read and interpret financial statements is essential for making investment and financing decisions. A manager cannot make decisions unless the manager understands the nature of investments and cash flows of projects. Therefore, this course requires a **strong foundation in accounting**. You should have covered these materials in MGT/P/B 200A, the core financial accounting class.
- Uncertainty is what makes the study of financial economics fascinating. Unfortunately, uncertainty also makes our task more difficult. The course assumes a **good working knowledge of statistics**. You should have covered these materials in MGT/P/B 203, the core statistics class. I expect you to make a serious effort to refresh your memory on some essential concepts such as descriptive statistics, inference techniques and basic regression analysis.
- A mathematical approach is necessary to avoid superficiality for many of the topics covered by this course. We will assume a **good knowledge of mathematics**, such as linear algebra. I am not a fan of technicalities per se, but I hope that by the end of the semester you will appreciate how the use of technical tools is important to make this a useful course.
- If you are planning to work in the area of investment management, it is essential that you develop your computer skills. I will assume that you know how to use spreadsheets to perform some basic analysis. I will assign problem sets that require a **proficiency of computing** skills, such as the use of Microsoft Excel. Moreover, various course exercises may rely on computer technology which may include, but not limited to, the use of emails, videos, webcasts/webinars and web-conferencing.

Grading Criteria, Exams, Assignments and Course Policy

Grading Criteria

The course grade is based on the following criteria:

Assignments (10)	30%*
Data Cases (4)	15%*
Bi-weekly Quizzes (4)	20%*
Final Exam	25%
Participation	10%

* For the purpose of grading, you are allowed to drop your one lowest assignment score. Similarly, you are allowed to drop your one lowest data case score and one lowest quiz score.

Assignments, Exams, Course Policy, and Office Hours

- **Readings:** We will be applying the concepts discussed in the readings during our class meetings. Therefore, **it is essential that students read the assigned materials PRIOR to our class meetings.** Prepare for class meetings just as you would prepare for any professional meetings.
- **Assignments:** Homework problems are assigned on a regular basis. These are to be completed individually, but you may collaborate with other students. There will be a total of **10 assignments – the first assignment is due on the first meeting.** All assignments are automatically given one-week grace period, but you should complete them on time to avoid running behind schedule. Assignments are to be completed using the MyFinanceLab online learning tool (see below).
- **Data Cases:** Additional spread-sheet based questions will be assigned (every other week) – these are also to be done individually, but you are **encouraged** to collaborate with other students.
- **Quizzes and Final Exam:** The quizzes and the final exam are **closed book and closed notes.** You are not allowed to use any notes or “cheat sheets”. For the final exam, a “formula sheet” will be provide. We will allow the use of calculators during quizzes and final exam.
- **Makeup Quizzes:** There will be no makeup quizzes. Any missed quizzes or assignment not turned in will receive a credit of zero in the computation of the final grade. By registering for this class you are committing, among other things, to take quizzes on the scheduled dates. However, the grading criteria already takes into account the possibility that you might miss a quiz or an assignment due to other conflicting obligations.
- **Meeting Expectations:** You are expected to prepare for every meeting, just as you would for any meeting in a professional setting. Ideally, you will:
 - Read the assigned materials PRIOR to the meetings to prepare for the discussions.
 - Complete the assignments PRIOR to the meetings to help prepare for meetings.
 - Attend and actively participate in all meetings.
 - Complete more assignments AFTER the meetings to reinforce the materials.
 - Apply the materials AFTER the meetings through data cases.
 - Repeat above steps in preparation for the next meeting.
- **Office Hours:** If you have any questions about the material covered in class please do not hesitate to see me. If you have problems keeping up with the material, do not wait hoping that things will get better. They will probably get much worse. Remember that the reason why you enrolled in this course is to learn some finance, not to *survive* through the course.

- **Tent Cards:** Classroom participation and interaction is an integral part of the learning experience. To facilitate this, students are expected to bring a tent card to every class session and place it visibly.
- **E-mail and Course Discussions:** Open discussion of course materials is an integral component of the learning process – both in the classroom and outside. To facilitate open discussions, responses to questions posted via e-mail may be forwarded to the entire class if it is of appropriate nature.
- **Additional Course Materials:** Any additional course materials (such as assignments, solutions, and additional readings) will be posted on the course web page. You are responsible for timely downloads of the materials from the course web page. I will also provide copies of my presentation slides on the course web page by the evening before the lecture.
- **Calculators and Computers:** The nature of the subject matter requires significant amount of numerical computations. Students are expected to bring a calculator to quizzes and examinations. Moreover, use of laptop computers in the classroom will be necessary.
- **On-line Content:** The course may include the use of Internet-based online educational tools. The tools may include technologies such as online-videos and other contents, webinars, web-conference, and others. Students are expected to be proficient with using such technologies when necessary.
- **Notice of the Code of Academic Conduct:** Students are expected to conform with the code of academic conduct, which can be found here: <http://sja.ucdavis.edu/files/cac.pdf>. Academic Affairs, as well as the Academic Director of the MBA Program, will be notified of any violations, and will take appropriate action.

Textbooks and Additional Readings

Textbooks

- Required:
Corporate Finance, 5th Edition (referred to as **BD** hereafter)
 Authors: Jonathan Berk and Peter DeMarzo
 Publisher: Pearson

There are hard-bound version, loose-leaf binder version and ‘eText’ version available. Any version is acceptable. Older editions are also not recommended.

There is also a shorter version available, called *Corporate Finance: The Core, 5th Edition*, with only the chapters that we will be using. It provides fewer chapters, but at the same cost. This version is also acceptable.

MyLab Finance
 Authors: Jonathan Berk and Peter DeMarzo
 Publisher: Pearson

MyLab Finance is an online education tool that accompanies the textbook. This is a required resource for this class. You can access this resource through “MyLab and Mastering” link on Canvas. If needed, use course ID ‘chen12232’ for MGP-205 and use course ID ‘chen75511’ for MGB-205.

The recommended purchasing option is to obtain *MyLab Finance* bundled with ‘Pearson eText’ version of the textbook. And then order loose-leaf binder version from within *MyLab Finance* under ‘Purchase Option’ tab. You will need to supply your own binder to keep the text together.

See author website for more details: <http://www.berkdemarzo.com/cf-student/>

MyLab Finance bundled with ‘Pearson eText’ can be ordered directly from the publisher:
<https://www.pearson.com/store/p/-/P100002530272/9780135161081>
 or from ‘MyLab and Mastering’ tab on Canvas.

Tentative Course Outline and Assigned Readings

This is a tentative course outline and assigned readings: **topics and assigned readings are subject to change.** Materials listed under “Optional Reading” are highly recommended for students intending to emphasize finance as an area of specialization.

Part 1: Introduction and Review

1a. Introduction to Finance and Review of Financial Statements

We begin by introducing the corporation and its key features such as: double taxation, and separation of ownership and control. We also introduce the capital market. Brief review of financial statements (balance sheet, income statement, statement of cash flows, and statement of stockowners’ equity) are provided and key valuation ratios are introduced.

Required Readings: BD, Chapters 1 (all), and 2.6

Optional Readings: BD, Chapters 2.1 to 2.5, 2.7, and all side-bars

Part 2: Capital Budgeting without Risk or Leverage

1b. Law of One Price and Time Value of Money

Fundamental concepts behind project valuation are introduced: valuation principle, net present value and the law of one price. We will also discuss the separation principle between investment decisions and financing decisions. Some basic mathematical mechanics underlying valuation is also covered.

Required Readings: BD, Chapters 3 (all), and 4.1 to 4.5

Optional Readings: BD, Chapters 4.6, 4.8, 4.Appendix, Annuity Calculator, and all side-bars

2a. Interest Rates and Bond Valuations

We will discuss the fundamentals of interest rates, including the notions of compounded interest, risk-free rate of return, impact of inflation, and cost of (debt) capital. An introduction to fixed-income security valuations is also provided.

Required Readings: BD, Chapters 4.7, 5.1, 5.3 to 5.5, 6.1, and 6.4

Optional Readings: BD, Chapters 5.2, 5.Appendix, 6.2, 6.3, 6.5, 6.Appendix, and all side-bars

2b. Investment Decisions and Cash Flow Forecasts

Various investment decision rules, such as net present value, internal rate of return, and payback rules, are compared. Capital budgeting using detailed forecasts of future free cash flow is discussed in the context of project analysis.

Required Readings: BD, Chapters 4.9, 7.1 to 7.4, 8 (all), and video on “Capital Budgeting”

Optional Readings: BD, Chapters 7.5, 7.Appendix, 8.Appendix, and all side-bars

Part 3: Risk and Capital Markets

3a. Equity Investors and Stock Returns

We introduce equity shareholders of corporations as a major stakeholder. Historical capital market returns are analyzed. Equity valuation models are developed. Market efficiency issues and behavioral biases of equity investors are considered.

Required Readings: BD, Chapters 9 (all), 10.1 to 10.4, 13.2 to 13.5,

and videos on “Castle in the Air Theory” and “Market Efficiency”

Optional Readings: BD, all side-bars

3b. Equity Cost of Capital

We derive the required rate of return of equity shareholders. Brief introduction to valuation under risk and uncertainty is covered. We discuss the intuition behind sources of risk premia, diversification of risk, and distinguishing systematic risk from idiosyncratic risk. Capital Asset Pricing Model (CAPM) is introduced and used to estimate equity cost of capital.

Required Readings: BD, Chapters 3.Appendix, 10.5 to 10.8, 12.1 to 12.3, 12.7, 12.Appendix, and videos on “Diversification” and “Mutual Fund”

Optional Readings: BD, Chapters 11 (all), 13.1, 13.6 to 13.8, 13.Appendix, and all side-bars

Part 4: Financing with Leverage

4a. Debt Financing and Pay-out Policies

We introduce debt holders of corporations as another major stakeholder. We analyze the impact of debt on firm value and cost of capital in a perfect market setting with no frictions and no taxes. Modigliani-Miller capital structure irrelevance principle is explained. Impact of pay-outs to equity shareholders are also discussed.

*Required Readings: BD, Chapters 17.1, 17.2, 17.7, 14.1-14.3, 12.4, 12.5,
and videos on “Default Risk” and “Capital Structure”*

Optional Readings: BD, Chapters 14.4-14.5, all side-bars

4b. Cost of Capital with Leverage and Taxes

We add the impact of taxes on cost of capital by introducing the tax shield benefit of debt. Weighted Average of Cost of Capital with taxes is developed. As an alternative, Adjusted Present Value method is discussed. The Flow-to-Equity method is also illustrated.

*Required Readings: BD, Chapters 12.6, 15.1 to 15.3, and 18.1 to 18.4,
and video on “Cost of Capital”*

Optional Readings: BD, Chapters 15.4, 17.3, 17.4, 18.5 to 18.8, 18.Appendix, and all side-bars

5a. Optimal Capital Structure

We discuss empirically observed capital structures and compare them to theoretically optimal capital structure. Cost of financial distress is considered. Agency issues between managers, equity shareholders and debt holders are discussed. Issues arising from asymmetric information is also examined.

Required Readings: BD, Chapters 15.5, 16 (all), 17.5, and 17.6

Optional Readings: BD, all side-bars

Part 5: Capstone Case Study

5b. Capstone Case Study

We will review the tools studied throughout the course by applying it to an extensive case. We will build and examine a valuation model for a hypothetical example.

Required Readings: BD, Chapter 19 (all)

Optional Readings: BD, all side-bars

Tentative Course Schedule

Schedule is subject to change
(Due dates for student deliverables are in **bold**)

Sac Bay Area

Topic: *Introduction to Finance and Review of Financial Statements*

Meeting 1a Mar 27 Apr 4 **Due: Assignment #1a**

Topic: *Law of One Price and Time Value of Money*

Meeting 1b Mar 27 Apr 4
Apr 3 Apr 11 **Due: Assignment #1b**

Topic: *Interest Rates and Bond Valuations*

Meeting 2a Apr 10 Apr 18 **Due: Assignment #2a, Data Case #1, and Quiz #1**

Topic: *Investment Decisions and Cash Flow Forecasts*

Meeting 2b Apr 10 Apr 18
Apr 17 Apr 25 **Due: Assignment #2b**

Topic: *Equity Investors and Stock Returns*

Meeting 3a Apr 24 May 2 **Due: Assignment #3a, Data Case #2, and Quiz #2**

Topic: *Equity Cost of Capital*

Meeting 3b Apr 24 May 2
May 1 May 9 **Due: Assignment #3b**

Topic: *Debt Financing and Pay-out Policies*

Meeting 4a May 8 May 30 **Due: Assignment #4a, Data Case #3, and Quiz #3**

Topic: *Cost of Capital with Leverage and Taxes*

Meeting 4b May 8 May 16
May 15 May 23 **Due: Assignment #4b**

Topic: *Optimal Capital Structure*

Meeting 5a May 22 May 30 **Due: Assignment #5a, Data Case #4, and Quiz #4**

Topic: *Capstone Case Study*

Meeting 5b May 22 May 30
May 29 Jun 6 **Due: Assignment #5b**

Final Exam

Final Jun 5 Jun 6 **Due: Final Exam**