## **Economics 163: Economics of Investments**

# University of California, Merced Spring 2018

Syllabus

Instructor: Professor Jason Lee Office: COB2 345

Email: jlee287@ucmerced.edu Office Hours: M: 4- 5PM; W: 1-2PM

Course Webpage: CatCourses

#### **Course Description**

This course is designed to provide students with an introduction to the various types of financial assets, including bonds, stocks and derivatives (options and futures markets). The course will focus on the principles of risk and return, diversification, asset allocation, market efficiency, valuation of stocks, bonds, and options. The ultimate goal of the course is to equip you with a set of tools and analytical skills that will help you think about investment decisions.

## **Program Learning Outcomes (PLOs) for Economics**

- (1) Describe the underlying economic incentives and tradeoffs associated with the decisions made by individuals, firms, international organizations and governments.
- (2) Apply economic concepts in analyzing policy debates and evaluating policy outcomes.
- (3) Design and conduct research that can inform business and government policy making, by collecting, analyzing and interpreting data using relevant software.
- (4) Demonstrate critical, evidence-based, thinking about economic phenomena, whether encountered in coursework or in media reports.
- (5) Communicate clearly and cogently in written and oral form.

#### **Course Learning Outcomes**

At the end of this course you should be able to:

- (1) Know the various types of financial securities, including the range of derivatives. (PLO 1 and 2)
- (2) Understand how financial markets operate. (PLO 1, 2 and 4)
- (3) Understand the economic properties of bonds and stocks, how they are priced, and how they can be used to raise capital. (PLO 2 and 4)
- (4) Understand how options and futures are priced. (PLO 2 and 4)
- (5) Understand how options and futures markets can be used to reduce financial risk. (PLO 2 and 4)
- (6) Measure risk and understand how the riskiness of an asset influences rates of return and portfolio allocation. (PLO 2 and 4)
- (7) Use a spreadsheet to keep track of an investment portfolio. (PLO 3)

#### **Prerequisites**

ECON 100 (Intermediate Microeconomics).

In addition the material and assignments are quantitatively intensive. You are expected to have an understanding of basic calculus and statistics (similar to the material found in ECON 10).

## **Required Materials**

Bodie, Kane and Marcus. (2016). Essentials of Investment, (10th Ed.)

Earlier editions of the text are widely available. You are free to use these earlier editions if you wish.

In addition, you will need to obtain a **scientific or graphing calculator** if you don't have one already. Keep in mind that smartphones are **NOT** permitted to be used as a calculator on any exam.

It is also recommended that you also read a quality financial newspaper to further your understanding of how the course material relates to current events. I recommend reading one of the following newspapers, either online or in print:

The Financial Times (www.ft.com)
The Wall Street Journal (www.wsj.com)

#### Grading

8 Problem Sets: 18% Group Project: 15%

Class Participation/Class Attendance: 6%

Online Quizzes: 10%

3 In-Class Exams: 51% [Each exam is worth 17%]

#### **Problem Sets**

- There will be 8 homework assignments periodically assigned throughout the semester.

  <u>Late assignments will not be accepted.</u> Due dates for all assignments are given below.

  Generally, you will be given at least a week to complete a homework assignment. All homework assignments can be found under the "Problem Set" folder on Cat Courses.
- Problem Sets are due at the beginning of class.
- Give yourself ample time to complete the assignments. While the homework's principal goal is to help you keep up with the material, the assignments can be challenging. Doing well on the homework will help with your performance on exams.
- You may work in **groups of 2 to 3 students** and turn in the problem set as a group. Students could also work individually.
- The <u>lowest assignment</u> will be <u>dropped</u> in calculating your homework score at the end of the course.

A tentative schedule of Problem Set due dates is as follows:

Problem Set #1: Thursday, February 1st Problem Set #2: Thursday, February 15<sup>th</sup> Problem Set #3: Tuesday, February 27th Problem Set #4: Thursday, March 15<sup>th</sup> Problem Set #6: Thursday, March 22<sup>nd</sup> Problem Set #6: Thursday, April 5<sup>th</sup> Problem Set #7: Thursday, April 19<sup>th</sup> Problem Set #8: Tuesday, May 1<sup>st</sup>

## **Investment Project:**

The investment portfolio project is designed to give you a basic (and somewhat simplified) understanding of real-world portfolio management. The project will require you to manage a portfolio of market-traded securities. Each investment team will be comprised of 5 students. Additional details concerning the investment project can be found on the class website on Cat Courses.

#### **Ouizzes**

There will be periodic quizzes assigned throughout the semester testing the material covered in the previous weeks. The quizzes are all multiple choice and are conducted online on CatCourses. All quizzes will be open book. You will generally have one week to complete the quiz. The quiz must be submitted by **11:59 pm** on the due date. There <u>will be no makeup</u> quizzes. I will drop the <u>lowest</u> quiz. The quizzes will be equally weighted.

A tentative schedule of quiz dates is as follows:

```
Quiz #1: Friday, January 26th [Material Covered: Chapters 1-2]
Quiz #2: Friday, February 9<sup>th</sup> [Material Covered: Chapters 3-4]
Quiz #3: Friday, February 16<sup>th</sup> [Material Covered: Chapter 10]
Quiz #4: Friday, February 23<sup>rd</sup> [Material Covered: Chapter 13]
Quiz #5: Friday, March 9<sup>th</sup> [Material Covered: Chapter 9.2, Chapter 15]
Quiz #6: Friday, March 23<sup>rd</sup> [Material Covered: Chapter 16]
Quiz #7: Friday, April 6<sup>th</sup> [Material Covered: Chapter 17]
Quiz #8: Friday, April 20<sup>th</sup> [Material Covered: Chapter 5]
Quiz #9: Friday, April 27<sup>th</sup> [Material Covered: Chapter 6]
Quiz #10: Wednesday, May 2<sup>nd</sup> [Material Covered: Chapters 7-8]
```

## **Class Attendance/Class Participation**

Students are encouraged to attend classes, especially given the fast pace of the course. Generally, there is a strong correlation between high grades and regular class attendance. While lectures will generally follow the text, additional material will be covered in lecture that is not found in your text. While students are not responsible for material in the book not covered in lecture, they will be responsible for any material covered in lecture that is not in the textbook. Class attendance will be taken on a regular basis. I will drop three (3) absences at the end of the semester.

#### **Exams**

The dates of the examinations are listed below. There will be no makeup exams given unless you have a documented medical excuse. If you have a conflict with taking the exams at the scheduled time you must drop the course.

```
Exam 1: Thursday, March 1<sup>st</sup> [Material Covered: Chapters 1-4, 10-10.5, 13]
Exam 2: Tuesday, April 10<sup>th</sup> [Material Covered: Chapter 9.2, Ch. 15, Ch. 16.1-16.3, Ch. 17]
Exam 3: Thursday, May 3<sup>rd</sup> [Material Covered: Chapters 5 – 8]
```

For the exams you will be allowed to bring (1) 3 x 5 note-card. You may use both sides of the note card as a "cheat-sheet".

#### **Grades**

Grades will be assigned using the following grading scale:

```
98 to 100 = A+ 77 to 79.99 = C+

93 to 97.99 = A 73 to 76.99 = C

90 to 92.99 = A- 70 to 72.99 = C-

87 to 89.99 = B+ 67 to 69.99 = D+

83 to 86.99 = B 63 to 66.99 = D

80 to 82.99 = B- 60 to 62.99 = D-

Below 59.99 = F
```

## **UC Merced Academic Honesty Policy**

Please refer to <a href="http://studentconduct.ucmerced.edu/">http://studentconduct.ucmerced.edu/</a> for a detailed description of the academic honor code on campus.

## **Tentative Lecture and Reading Schedule**

(This schedule is subject to change)

Date	Topic	Readings
PART I. Overview of the Investment Environment		
Tuesday, January 16	Overview of Course; Introduction	Chapter 1
	to Investments	
Thursday, January 18	Overview of Financial Instruments	Chapter 2
Tuesday, January 23	Overview of Financial Instruments	Chapter 2 Continued
Thursday, January 25	Overview of Securities Markets	Chapter 3
Tuesday, January 30	Overview of Securities Market	Chapter 3
Thursday, February 1	Overview of Mutual Funds and	Chapter 4
Thursday, I cordary 1	Investment Companies	Chapter 4
PART II. Fixed Income and Equity Valuation		
Tuesday, February 6	Introduction to Bonds	Chapter 10.1 – 10.5
Thursday, February 8	Bond Pricing	Chapter 10.1-10.5
Tuesday, February 13	Stock Valuation	Chapter 13.1 to 13.2
Thursday, February 15	Stock Valuation	Chapter 13.1 to 13.2
Tuesday, February 20	Stock Valuation	Chapter 13.3 to 13.4
Thursday, February 22	Stock Valuation	Chapter 13.5; Lecture Notes
Tuesday, February 27	Technical Analysis	Chapter 9.2
Thursday, March 1	EXAM #1	
PART III. Derivatives		
Tuesday, March 6	Option Basics	Chapter 15
Thursday, March 8	Option Strategies	Chapter 15
Tuesday, March 13	Option Valuation	Chapter 16.1-16.3
Thursday, March 15	Option Valuation	Chapter 16.1-16.3
Tuesday, March 20	Option Valuation/Future Markets	Chapter 16 Continued; Chapter 17
Thursday, March 22	Future Markets	Chapter 17
March 26 – March 30	SPRING BREAK!	
PART IV. Risk and Portfolio Choice		
Tuesday, April 3	Future Markets	Chapter 17
Thursday, April 5	Measuring Risk and Return	Chapter 5
Tuesday, April 10	EXAM #2	
Thursday, April 12	Measuring Risk and Return	Chapter 5 Continued
Tuesday, April 17	Managing Risk and	Chapter 5; Chapter 6.1-6.4
raesaay, ripin 17	Return/Portfolio Choice	Chapter 5, Chapter 6.1 6.1
Thursday, April 19	Managing Risk and	Chapter 6.1-6.4
J 7 I	Return/Portfolio Choice	1
Tuesday, April 24	Portfolio Choice	Chapter 6.1-6.4
Thursday, April 26	Capital Asset Pricing Model	Chapter 7.1
Tuesday, May 1	Efficient Market Hypothesis	Chapter 8.1-8.3
Thursday, May 3	EXAM #3	