

**Brandeis University**  
**International Business School**  
**Syllabus - FIN 201A - Investments**  
**Fall 2018 (Version 8/29/18)**

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Wednesdays 6:30-9:20 in Sachar 116, Intl Hall  
Office Hours Location: S-001G  
Wed 5:15-6:15, Thur 5:15-6:15

Professor Patrick Herb  
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### **Preliminary Syllabus - Items Subject to Change**

#### **Teaching Assistants, Office Hours, Review Sessions**

Name: Shuxuan (Ariel) Chen	Email: shuxuanchen@brandeis.edu
Name: Muxi Jiang	Email: jiangmuxi@brandeis.edu
Monday's 11:00-12:00	Location: IBS Cluster
Tuesday's 5:00-6:00	Location: IBS Cluster
Wednesday's 4:00-5:00	Location: IBS Cluster
Review Session: Fri 2:00-3:20	Location: Lemberg 54
Additional office hours by appointment	

#### **Prerequisites**

A basic course in statistics is required, but may be taken concurrently. This course may not be taken for credit by students who have previously taken ECON 171A.

#### **Course Material Online**

Course material including announcements and slides will be posted online on the LATTE platform. You will need your UNet username and password to log on to the system at <https://moodle2.brandeis.edu>. You should check this site for the latest versions of the course materials. New updates are typically emailed out through the LATTE system, but you may want to routinely check your spam folder over the semester.

#### **Online Problem Sets**

There will be 12 problem sets assigned that must be completed on Connect, which is a McGraw-Hill (our textbook publisher) application. Registration for Connect is found at the website provided below. An additional website is given for help with registration. You can purchase Connect AND a digital copy of the textbook for \$130, or you can buy the physical textbook and Connect bundle from the Brandeis bookstore for \$335.

**Register for Connect:** <http://connect.mheducation.com/class/p-herb-fall-2018>

**Help with registration:** <http://bit.ly/StudentRegistration>

#### **Course Description**

The course covers topics related to financial economics, including investors' attitudes toward risk, capital allocation, portfolio selection, asset pricing models (Capital Asset Pricing Model and Arbitrage Pricing Theory), the efficient market hypothesis, fixed income markets, equity valuation, and options and futures markets. The course is lecture based. Lectures consist of covering theory, examples, and class discussion. Problem sets focus on applying the material from lectures.

#### **Learning Goals**

- Understand the fundamental principles of investing in financial markets

- How investors make investment decisions
- What determines asset returns and valuations
- Gain a quantitative understanding of
  - Capital allocation decisions
  - Equity valuation, bond markets, and option pricing
- Increase understanding of current events in financial markets

### **Class Preparation**

I will post lecture slides on LATTE before each class. I highly recommend reviewing the slides before class begins. Students in the past have found it useful to print the slides out before class and take notes on the printed copies.

The textbook for the course is **Bodie, Kane, and Marcus (BKM) “Investments” 11<sup>th</sup> Edition**. It is very important to have the correct edition of textbook as there are several changes to chapters and problems. I will assume that everyone has the correct edition.

Each class has specific readings associated with it, which are found in the “detailed course outline” at the end of this syllabus. These readings are required before you attend class. Reading the entire chapter is recommended for your own edification but not required. The required reading sections are subject to change, so be sure to frequently check for the latest version of the syllabus.

### **TA Review Sessions**

Every lecture will be accompanied by a TA review session scheduled on Fridays from 2-3:20pm. This session is optional and provides a structured environment to help students deepen their understanding of the course material. TA sessions will be similar to an office hour, in which the TA provides examples of how to solve particularly difficult problems. This is a great chance to ask questions that require lengthier explanations than lectures typically allow for. It is a smart practice for students to email their questions to the TA before the review session, as that should guarantee a well thought out answer.

### **TA Office Hours**

Every week (excluding holidays) the TA will hold unstructured office hours to provide students with the opportunity to ask questions. The TA will not prepare any material, rather it is the responsibility of the student to come prepared with excellent questions. TA office hours will be held in the cluster on Monday’s, Tuesday’s and Wednesday’s from 3:30-4:30.

### **Requirements & Evaluation**

You are required to attend all classes, participate in discussions, and familiarize yourself with (and follow!) the policies of academic integrity (see below). You should also keep up with general financial news as this forms the basis for class discussion.

Your grade will be based on class participation, problem sets, the midterm exam and the final exam. If you think you may have to miss the midterm, you need to contact me *before* the exam and have a *very* good reason. There will be no make-up review problems or make-up midterms. If you miss it, more weight will be put on the other components of your grade. All exams will cover material up to the point at which the exam is held.

#### **1. Class Participation (15%)**

The class is interactive and I expect everyone to participate. Notice that class participation carries an important weight in the grading of the course. I expect you to be engaged and participate in class. I also expect you to be on time and will record attendance through a sign in sheet. All students must clearly display their names so that the TA can record class participation.

### **3. Problem Sets (20%)**

For many students, learning is best accomplished through hands on problem solving. You will be completing all of your problem sets online through the Connect platform (described above). A new problem set will be assigned at the end of each lecture, and you will have until the next lecture starts (6:29:59pm) to finish the assignment (typically 1 week). Solutions and grades will post exactly 1 hour after the deadline, so I **cannot accept late assignments**. The problem set schedule is outlined in the 'detailed course outline' section at the end of this syllabus. You may talk to other students about how to solve problem sets, but simply copying other students' answers is a violation of academic integrity and will almost certainly leave you unprepared for the exams. Taking the problem sets seriously is the best way to learn the material and prepare for exams.

### **4. Midterm Exam (25%)**

The Midterm examination will be held on Wednesday October 10<sup>th</sup>, from 6:30-7:50. The second half of class will be a lecture.

### **5. Final Exam (40%)**

The final examination will be held on December XX from T1 to T2 in room XXX. The final exam will cover material from the entire course with a slight emphasis on the material after the midterm exam. On Wednesday December 12<sup>th</sup> from 6:30-8:30 there will be an optional final exam review session held in room XXX.

### **Grade Distribution**

The grade distribution for the class will be close to:

A	30%
A-	15%
B+	15%
B	30%
B- and below	10%

### **Calculator Policy**

For exams you are **NOT** allowed to use financial or graphing calculators that are capable of directly calculating bond price, annuity value, yield to maturity or duration. As such, I highly recommend that you complete the problem sets with the same calculator that you will use for exams.

### **Other Class Rules**

- Cell Phones: [No cell phones, no exceptions!] You are **never** allowed to use your cell phones during class or exams. Cell phones must remain shut off (or on silent mode stored away) at all times.
- Tablets and Laptops: [Only for viewing lecture slides] You may use these only to view lecture slides during lectures (not exams). You may not check email, surf the web, be on Facebook, play video games, etc.
- No Food: Eating during class is disruptive to some students. Eat only before class, during break or after class.

### **Accommodation for Disabilities:**

If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately. For more information go to: <http://www.brandeis.edu/disability>

### **Academic Integrity:**

You are expected to be familiar with and to follow the University's policies on academic integrity.

Instances of alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. See “Brandeis University Rights and Responsibilities” chapter 3: <http://www.brandeis.edu/studentlife/sdc/rr>

Here is the first part: “Every member of the University community is expected to maintain the highest standards of academic integrity. A student shall not submit work that is falsified or is not the result of the student’s own effort. Infringement of academic honesty by a student subjects that student to serious penalties that may include failure on the assignment, failure in the course, suspension from the University or other sanctions (see Section 21). A student who is in doubt regarding standards of academic honesty in a course or assignment should consult the faculty member responsible for that course or assignment before submitting the work. A student’s lack of understanding is not a valid defense to a charge of academic dishonesty.” If you are ever in doubt about any of these rules please contact me immediately.

### Overview of Topics Covered

Introduction, Risk and Return (4 lectures)  
 Capital Allocation (4 lectures)  
 CAPM and APT (3 lectures)  
 Market Efficiency (2 lectures)  
 Bonds (3 lectures)  
 Equity Valuation (2 lectures)  
 Options (3 lectures)  
 Futures, International Markets (2 lectures)

### Detailed Course Outline

Date	Lecture Topics & TA Sessions	Reading	Problem Sets
8/29 (W)	L1: Investment Environment L2: Basic Statistics, Present & Future Value	1.1-1.5 5.4-5.7	PS1 Assigned
8/31 (F)	TA1: Statistics Review, Present & Future Value		
9/5 (W)	L3: Asset Classes, Financial Instruments, Trading Securities L4: Risk and Return	2, 3.2, 3.7-3.9 5.1, 5.3-5.5, 5.8	PS1 Due PS2 Assigned
9/7 (F)	TA2: Risk and Return		
9/12 (W)	L5: Risk Preferences & Capital Allocation L6: Capital Allocation (2 Assets: CAL, CML, POS)	6.1-6.2, 6.4 6.4-6.6, 7.2	PS2 Due PS3 Assigned
9/14 (F)	TA3: Capital Allocation		
9/19 (W)	No Class - Yom Kippur - Holiday		
9/21 (F)	No TA Review Session		
9/26 (W)	L7: Portfolio Selection (Risk Free & 2 Risky Assets) L8: Markowitz Portfolio Selection	7.2, 7.3 7.1, 7.4, 8.1	PS3 Due PS4 Assigned
9/28 (F)	TA4: Portfolio Selection		
10/3 (W)	L9: Index Models L10: Capital Asset Pricing Model	8.2, 8.3, 8.5 9.1-9.4	PS4 Due PS5 Assigned
10/5 (F)	TA5: CAPM		
10/10 (W)	TA6: Optional Midterm Review Session (6:30-8:20)		PS5 Due

<b>Date</b>	<b>Lecture Topics &amp; TA Sessions</b>	<b>Reading</b>	<b>Problem Sets</b>
10/12 (F)	No TA Review Session		
10/17 (W)	<b>Midterm Examination (6:30-7:50)</b> L11: Arbitrage Pricing Theory	10.1-10.3	PS6 Assigned
10/19 (F)	TA7: Midterm Questions Explained		
10/24 (W)	L12: Market Efficiency & Empirical Evidence L13: Market Efficiency, Interpreting the Evidence	11.1-11.4 11.2, 11.5, 12	PS6 Due PS7 Assigned
10/26 (F)	TA8: Market Efficiency		
10/31 (W)	L14: Bond Pricing, Intro to Fixed Income L15: Bond Pricing, Term Structure of Interest Rates	14.1-14.4 15.1-15.4	PS7 Due PS8 Assigned
11/2 (F)	TA9: Bond Pricing		
11/7 (W)	L16: Bond Pricing, Duration L17: Equity Valuation	16.1 18.1-18.3	PS8 Due PS9 Assigned
11/9 (F)	TA10: Duration		
11/14 (W)	L18: Equity Valuation, Dividend Discount Model L19: Options	18.3-18.4 20.1-20.3	PS9 Due PS10 Assigned
11/16 (F)	TA11: Equity Valuation		
11/21 (W)	No Class - Thanksgiving - Holiday		
11/23 (F)	No TA Review Session		
11/28 (W)	L20: Options Strategies L21: Option Pricing	20.4, 21.1, 21.3 21.3-21.4	PS10 Due PS11 Assigned
11/30 (F)	TA12: Options		
12/5 (W)	L22: Futures L23: Investing in International Markets	22 25.1-25.3	PS11 Due PS12 Assigned
12/7 (F)	TA13: Futures		
12/12 (W) 6:30-8:30	No class - Study Day Optional Final Exam Review		PS12 Due
12/13-20	<b>Final Examination (Time and Place TBD)</b>		