

## **Objectives**

This course provides an overview of the U.S. financial system. We consider the decision problems faced by investors, financial intermediaries and the central bank and see how these players interact to determine interest rates and other asset prices as well as the allocation of funds. We will further explore the role of money and monetary policy in the macroeconomy. The course material is relevant for (i) personal financial decisions, such as saving for retirement, (ii) financial decisions by businesses and government, (iii) a host of current public policy issues, in particular preventing and dealing with financial crises.

## **Lectures**

Lectures take place on Mondays and Wednesdays

- in CBA 4.328 from 8:00am-9:20am for section 03815,
- in UTC 1.118 from 11:00am-12:20pm for section 03820,
- and in UTC 1.118 from 12:30pm-1:50pm for section 03825.

## **Course Website**

The course has a site on UT's Canvas system (<http://canvas.utexas.edu/>). I will use Canvas to post assignments and other course materials, and for announcements. Canvas has a discussion board which I am planning to use to answer questions that are of general interest to all class members (e.g. questions about a homework problem).

## **Contact Information**

The TAs for the course are Xiang (Nicole) Liu ([xiang.liu@phd.mcombs.utexas.edu](mailto:xiang.liu@phd.mcombs.utexas.edu)), Qifei Zhu ([qifei.zhu@phd.mcombs.utexas.edu](mailto:qifei.zhu@phd.mcombs.utexas.edu)), and Lee Seltzer ([lee.seltzer@phd.mcombs.utexas.edu](mailto:lee.seltzer@phd.mcombs.utexas.edu)). The TAs will hold office hours at times and locations to be announced on Canvas. I will be holding office hours on Mondays from 3:30pm-5:30pm and Wednesdays from 3:30-5:30pm in my office (CBA 6.276). Outside of these hours, the best way to contact me is via email ([tim.landvoigt@mcombs.utexas.edu](mailto:tim.landvoigt@mcombs.utexas.edu)) or Canvas.

## **Textbook(s)**

There is no required textbook for the class. The textbook that comes closest to covering most of the material for this class is "The Economics of Money, Banking, and Financial Markets", by Frederic S. Mishkin (business school version; third or fourth edition). However, the book contains many things that we will not cover, while at the same time being too superficial about the things that we do cover. In the part of the class on monetary policy, we will draw on the online textbook "Short-run Fluctuations" by David Romer (UC Berkeley), available for download from his website. I will also post a version of this book on Canvas. Several other textbooks are useful in-depth reading on specific topics we cover:

- "Investments", by Z. Bodie, A. Kane, and A. Marcus;

For stock market, bonds, term structure, and derivatives pricing.

- “Macroeconomics”, by A. Abel, B. Bernanke, and D. Croushore;  
For monetary policy.
- “Corporate Finance Theory”, by J. Berk, P. DeMarzo;  
For capital structure and corporate risk management.
- “Financial Institutions Management”, by A. Saunders, M. Millon Cornett;  
For bank management and regulation.

### **Other Class Materials**

The course content will be defined by my self-contained lecture slides that I will make available on Canvas in advance of every class. During class, I will frequently go through example problems that we will solve together. For some of these problems, the solutions are also written out in the slides, but generally it will be your responsibility to make sure to write down the solutions as we go along.

You will need a scientific calculator for the course capable of doing powers (e.g.  $1.04^{10}$ ) and logarithms. If you have a calculator with financial functions such as IRR, PV, FV, etc., please feel free to use it for homework and during exams, however such a calculator is not required. So that it can be used during exams, your calculator cannot be on your phone. Some homework assignments will require you to use Microsoft Excel.

### **Assignments**

There will be regular homework assignments in this class in the shape of 6 problem sets. The problem sets will mostly consist of quantitative problems and some multiple-choice questions. For the homework assignments, you will have to form groups of 2-5 students. You do not need to stay with the same group for the duration of the course. However, in order to receive credit, your name needs to appear on at least one solution for each assignment.

Assignments will be posted on the course website, and the due date of each assignment will be clearly indicated on the assignment. You can turn in completed assignments in class any time before the due date, by uploading a pdf on Canvas, or at the front office of the Finance Department (6th floor of CBA). The front office closes at 5pm. Late assignments will receive a zero score.

### **Exams and Grades**

In addition to the homework assignments, your course grade will be based on two in-class exams (midterms) and a final exam. The two midterms will be on the following dates

1. Monday, September 28,
2. Wednesday, October 28,

and they will be held during the regular class times on those days. The final exam will be during exam week. I will arrange common exam times for all three sections.

The composition of the grade will be as follows: homework assignments will count for 30% of the total course grade (i.e. each homework will count for 5% of the total grade), and exams will count for 70%.

The final exam is mandatory, but the midterms are optional exams. At the end of the course, I will only use your best midterm score (of the two). If this score is higher than your final exam score, it will count 1/2 of your total exam score. If it is worse than your final exam score, I will drop it.<sup>1</sup>

The midterm exams will be closed-book exams limited to the material covered in the first and second third of the class, respectively.

The final exam is comprehensive and is based on all material covered in the class. The exam is closed-book but students may bring a double-sided letter-sized “cheat sheet” to the exam.

The final course grade will be “curved” in accordance with the suggested BBA grading guidelines for electives. This means a target GPA average between 3.4-3.6.

## Contents Overview

### Intro

1. What types of securities and intermediaries exist in the U.S. today?
2. What is money?
3. What are the functions of markets vs. intermediaries?

### Part 1: Investing and Financial Markets (to midterm 1)

1. Review: Interest rates, time value of money calculations, real vs. nominal rates
2. Risk and return in the bond market, bond duration
3. The stock market: investor demand and aggregate risk premium
4. The term structure of interest rates: expectations hypothesis and the term premium

### Part 2: Money and Monetary Policy (to midterm 2)

1. The Federal Reserve and the money supply process
2. Macroeconomic effects of monetary policy (IS-MP-IA model)
3. Fed policy announcements and financial markets

### Part 3: Firm Finances and Financial Intermediaries

1. Debt contracts: firm and lender perspective
2. Equity finance: information issues and adverse selection
3. Bank risk management (hedging interest rate risk)
4. Bank liquidity and capital regulation

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<sup>1</sup>Let the two midterm scores be  $M_1$  and  $M_2$ , the final exam score be  $X$ , and the average homework score be  $H$ . Then your total score for the course will be

$$S = 0.3H + 0.7 \max \left\{ \frac{\max\{M_1, M_2\} + X}{2}, X \right\}.$$

**Preliminary course plan for each class (subject to change)**

Class	Date	Topic	Assignment
1	8/26	Introduction, interest rates, annuities	
2	8/31	Bonds, nominal vs. real rates	
3	9/2	Risk and return, interest rate risk, duration	HW #1: Discounting, annuities, i-risk, duration
4	9/7	Stocks, PF choice	
5	9/9	HW#1 problems	
6	9/14	Term structure I	
7	9/16	Term structure II	HW #2: Stocks, PF choice, term structure
8	9/21	Fed, Money supply, money multiplier	
9	9/23	HW#2 problems	
10	9/28	Mid-term 1	
11	9/30	Monetary Policy: expected inflation, real rates, IS-MP	
12	10/5	Romer I: IS-MP	HW#3: Money supply, IS-MP
13	10/7	Romer II: IS-MP-IA	
14	10/12	HW#3 problems	
15	10/14	Romer III: full model	
16	10/19	Fed announcement effects; MP in practice	HW#4: IS-MP-IA
17	10/21	Firm finances, debt contracts: taxes and bankruptcy	
18	10/26	HW#4 problems	
19	10/28	Mid-term 2	
20	11/2	Debt contracts: lender's perspective	
21	11/4	Equity vs. debt; information issues	
22	11/9	Equity vs. debt: Myers-Majluf; Hedging	HW#5: Equity, debt
23	11/11	Pricing options	
24	11/16	HW#5: problems	
25	11/18	Micro-hedge	
26	11/23	Bank balance sheets, market risk, macro-hedge, cap.req.	HW#6: Options, futures, hedging
27	11/25	Cap. requ. , practice	Practice problems
28	11/30	HW#6: problems	
29	12/2	Practice, Q&A	

## **Missed Assignments or Exams**

If you miss a homework assignment or an exam due to a family or personal emergency, you will be given an opportunity to complete the missed work within a reasonable time. The emergency must be documented and verified by UT's Student Emergency Services (<http://deanofstudents.utexas.edu/emergency/>); only then will I grant an assignment modification, extension, or a make-up exam.

## **Students with Disabilities**

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259, <http://www.utexas.edu/diversity/ddce/ssd/>.

## **Religious Holy Days**

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence. For in-class exams missed because of a religious holy day, the same rules apply as to exams missed because of a medical or family emergency stated above.

## **Policy on Scholastic Dishonesty**

The McCombs School of Business has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the BBA Programs Statement on Scholastic Dishonesty at <http://www.mcombs.utexas.edu/BBA/Code-of-Ethics.aspx>. By teaching this course, I have agreed to observe all faculty responsibilities described in that document. By enrolling in this class, you have agreed to observe all student responsibilities described in that document. If the application of the Statement on Scholastic Dishonesty to this class or its assignments is unclear in any way, it is your responsibility to ask me for clarification. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since dishonesty harms the individual, all students, the integrity of the University, and the value of our academic brand, policies on scholastic dishonesty will be strictly enforced. You should refer to the Student Judicial Services website at <http://deanofstudents.utexas.edu/sjs/> to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

## **Campus Safety**

Please note the following recommendations regarding emergency evacuation, provided by the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety>:

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation should inform the instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Behavior Concerns Advice Line (BCAL): 512-232-5050

- Further information regarding emergency evacuation routes and emergency procedures can be found at: <http://www.utexas.edu/emergency>.

### **Privacy in Canvas**

Information in Canvas is protected by your UTEID login. Please be aware that I will use a merged Canvas site for all sections of the course that I am teaching this semester. This will allow students in other sections to see that you are enrolled in the course and send you email from within Canvas. However, they will not actually learn your email address and no other personal data will be revealed through Canvas. If you have any concerns, please contact the ITS Help Desk at 475-9400 for help removing your name from view of other students.