

**Syllabus – Spring 2015**

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Class lectures  
Mon/Wed 12:00 – 1:50 PM Room: HOH 301

Office hours  
Mondays 2:00 – 3:00 PM  
Tuesdays 5:00 – 6:00 PM

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**Introduction and Course Objective**

“Trading and Exchanges” will introduce you to the theory and practice of securities and contract trading at exchanges, in dealer networks, and among brokers. We will examine

- why and how people trade,
- who profits from investing and speculating, and when,
- the principles of proprietary trading and high frequency trading,
- why market institutions are organized as they are,
- how markets are changing in response to innovations in information technologies,
- the origins of liquidity, volatility, price efficiency, and trading profits, and
- the role of public policy in the markets.

To address these questions, we must understand why and how institutions, dealers, and individuals trade. Understanding trader behavior and how market structure affects trader behavior is the primary course objective.

**Target Audience**

This course is for anyone who wants to understand how markets work and how people trade. The reading assignments and the class lectures are appropriate for students who have no market experience.

Experienced traders also will find this course to be valuable. Although you may already know much about market institutions, the economic perspectives that you will learn in this course will greatly improve your understanding of why some people make money while others lose money. Many brokers and dealers have learned much from this course. Students with substantial market experience have little advantage over other students other than initial familiarity with the jargon and institutions.

This course is of obvious interest to students interested in trading. It also will greatly benefit students who are interested in understanding the determinants of investment performance.

## Learning Objectives

The objectives for this course are to develop your ability to understand, participate in, and manage trading processes within various market structures. This course will help you develop the following knowledge and skills:

- Global Objective
  - Understand trading terms, concepts, principles, and theories.
- Detailed Objectives
  - Understand how
    - markets operate,
    - traders behave,
    - market structure affects trader behavior, and
    - traders and trading companies lobby policy-makers on market design issues.
  - Be able to
    - construct optimal trading strategies to solve various problems,
    - evaluate and motivate brokers,
    - recognize various trading styles and determine when they will be profitable,
    - Predict who will profit from trading and who will lose,
    - Predict when and which markets will
      - be liquid and
      - have informative prices.
    - Identify trading risks and manage them.

## Required Materials

- Larry Harris, *Trading and Exchanges: Market Microstructure for Practitioners* (New York, Oxford University Press, 2003, ISBN 0195144708). An errata sheet will be posted on Blackboard.
- Daily access to the *Wall Street Journal*.

## Supplemental Materials

- Edwin Lefèvre, *Reminiscences of a Stock Operator*, (New York: John Wiley and Sons, Inc., Reprinted 1993, ISBN 0-47105970-6, first published in 1923)

Reminiscences is a ghostwritten autobiography of Jesse Livermore. Livermore was a very successful stock and commodity speculator who traded in the late 19th and early 20th centuries. The author, Edwin Lefèvre, was a financial reporter who spent two months interviewing Livermore for this project. The text is a first-person narrative by a character called Larry Livingston, who clearly represents Jesse Livermore. The book is full of market wisdom and human wisdom. It is easy to read, engaging, and covers many of the topics of this course.
- Richard Bookstaber, *A Demon of Our Own Design: Markets, Hedge Funds, and the Perils of Financial Innovation*, (New York: John Wiley and Sons, Inc., 2007, ISBN 0471227277). An excellent summary of the main risk management issues in the financial markets.
- John Downes and Jordan Elliot Goodman, editors, *Dictionary of Finance and Investment Terms*, 9th Edition (New York: Barron's Educational Series, 2014, ISBN 978-1438001401)

This inexpensive dictionary is useful for quickly defining financial jargon and concepts.
- CFA Institute Financial NewsBrief. This free resource provides a daily email that briefs important current financial news stories and provides links to the primary sources. Sign up at [www.smartbrief.com/cfa](http://www.smartbrief.com/cfa). You should read it every day.
- CFA Institute, *Standards of Practice Handbook*, Eleventh edition, 2014 at <http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2014.n4.1>

This handbook provides an excellent introduction to the ethical issues that arise in trading and investment management.

### Prerequisites

1 from (BUAD 215 or BUAD 306)

Familiarity with Investments, Microeconomics, Corporate Finance, Information Technologies, and Statistics is helpful but not necessary. You will not be lost if you have not yet studied these subjects, but sometimes you may have to work harder than students who are already familiar with their principle concepts.

### Other Course Materials

Copies of various supplemental course materials will available through your Blackboard account. I may use a password to protect some documents. If so, the password will be **TradeOn**. The password is case sensitive.

### Grading Summary

<u>Assignments</u>	<u>% of Grade</u>
<b>TESTS</b>	
<b>Best 6 of 7 quizzes, @ 10% each</b>	60.0%
<b>Final Exam</b>	40.0%
<b>TOTAL</b>	100.0%

Final grades represent how you perform in the class relative to other students. Your grade will not be based on a mandated target, but on your performance, consistent with the policies of USC and the Marshall School of Business.

I consider four items when assigning course grades:

1. Your weighted-average standardized score for all exams. Since exams inevitably vary in difficulty, I standardize the scores by subtracting the class mean and dividing the result by the class standard deviation. I average these standardized scores weighting by the contributions of each exam to the course grade. For the purpose of computing the course grade, I base the standardization only on the scores of students who will receive non-failing course grades.
2. Your weighted-average exam score. This measure does not standardize the scores for each exam. It is equivalent to imagining that your course grade is based on a single exam with separate seatings occurring on each of the quiz and final exam days. Note that under this measure, missing a quiz on a day when the quiz is easy is worse than missing a quiz on a day when the quiz is hard.
3. Your ranking among all students in the class using the above two measures.
4. My impression of the overall achievement of the students in the course relative to that of other students in comparable courses that I have taught in the last few years.
5. The course GPA recommended by the Marshall School for elective undergraduate classes.

### ASSIGNMENTS AND GRADING DETAIL

#### Examinations

The examinations will consist of essay, one-sentence, one word, or multiple choice questions. I may mix the question types. I generally do not reveal the question types in my exams before I give them.

The quiz and final examination dates will not change. Please check now to see that you do not have any conflicts.

The quizzes and the final examination will be cumulative examinations. The quizzes will cover topics introduced since the previous quiz and also topics covered by previous quizzes. Since I occasionally

reuse questions from previous quizzes, I strongly suggest that you review your graded quizzes to ensure that you can correctly answer questions that you missed in the past.

Quiz 0 is a practice quiz that will not count toward your course grade.

The quizzes will be 30 minutes long (3 minutes per 1% of the course grade) and the final exam will be 120 minutes long (also 3 minutes per 1% of the course grade).

### **Homework**

I often assign homework. The homework is an integral part of this course and I expect everyone to do it, even though it does not count toward your grade.

I usually assign homework during the class session before it is due and post the assignment on Blackboard at least one day before it is due. The assignments will vary, but in general, they will be designed to ensure that you are keeping up with your reading and with current news about market structure.

Most assignments will take the form of a memo that you will write to identify the substance of an issue or story that I assign to you. Write the memo as a short half page brief that can easily be understood by people working in the trading industry who are familiar with jargon but who may not be familiar with the issues that you need to identify and explain. Use your own words only (don't copy text from news stories or the texts). Pay attention to paragraph structure, spelling, and grammar. I will accept only electronic submissions through Blackboard.

When working on the memo assignments please ensure that:

1. You make a conscientious effort complete the assignment.
2. You identify the main issues.
3. You explain why these issues are important.
4. Your memo is well written and easy to read.

Other assignments may request that you do a calculation or provide a short report on an activity that I may assign you to do.

Here is an example of a homework assignment for which I requested a brief of a press release made by BATS ECN:

Trading and Exchanges Homework Assignment 1	Your Name USC ID: 1234-5678-90
<b>BATS ECN Unveils Ultra-Aggressive January Pricing Special</b>	
Press release prepared by BATS ECN date 12/19/06.	
The BATS ECN introduced an inverted pricing schedule for the month of January in which it will rebate more to liquidity adders than it will charge liquidity removers for access. BATS will maintain the plan throughout the month of January or until it trades 5 billion shares.	
BATS expects that this highly aggressive pricing plan will encourage broker-dealers to route their orders to its new trading system. It hopes that the new relationships that result will generate significant order flow in the future, and thereby make BATS a more formidable competitor to Nasdaq.	

Most students complete all the homework assignments satisfactorily and on time. In my experience, students who fail to turn in all of the homework assignments on time or who fail to take them seriously, also tend to do very poorly on the exams.

### **USC Marshall Critical Thinking Initiative**

The USC Marshall Critical Thinking Initiative is a school-wide effort to improve your critical thinking skills so that you can be more successful problem solvers in class and in the workplace. In this course, you will engage in a variety of learning activities that are aimed at developing and applying your critical thinking skills in a disciplined manner so that you can outperform others to get your desired job and to further excel in your career. Your ability to think critically is an important part of the evaluation/grading process in this course.

### **Discussion Board**

The Blackboard discussion board for this class will be available for on-line discussions. If you have questions, post them to the board and your classmates or I will answer them. I sometimes answer questions quickly, and sometimes I let a question sit for a while, especially if the answer can easily be found in the book.

## **MARSHALL GUIDELINES**

### **Add/Drop Process**

This class is an open enrollment class (R-clearance) through the first three weeks of classes. If there is an open seat, you may freely add the class using Web Registration throughout the first three weeks of the term. If the class is full, you will need to continue checking Web Registration to see if a seat becomes available. There is no wait list for this course, and I cannot add students. However, I can drop you from my class if you don't attend the first two sessions. See <http://catalogue.usc.edu/academic/>.

Further, if you are absent six or more times before April 10, 2015 (the last day to withdraw from a course with a grade of "W"), I may ask you to withdraw by that date. These policies maintain professionalism and ensure a system that is fair to all students.

### **Marshall Grading Guidelines**

**Course Grading Policy:** Marshall's recommended target mean GPA is 3.3 for undergraduate elective courses. I assign higher or lower average grades based on my perception of overall performance of the class in comparison to other classes I have taught and in comparison to my general expectations for students in the class.

**Assignment/Exam Grading Policy:** As the instructor, I determine what qualifies as an accurate grade on an assignment, exam, or other deliverable, and my evaluation of the performance of each individual student is the final basis for assigning grades for the course. I may delegate some grading to assistants, but I remain responsible for all grades.

I adhere to the following Marshall School standards for undergraduate grading:

- A      Excellent quality work
- B      Good quality work
- C      Fair quality work
- D      Work of minimum passing quality
- F      This grade is awarded to any undergraduate student failing to meet the minimum standards for passing the course. The grade of F indicates that the student failed at the end of the semester or was doing failing work and stopped attending the course after the twelfth week of the semester.

Plus/minus grading (A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F) increases the basic five grades to a total of twelve possible levels of performance.

I interpret these standards as follows:

- A Mastery of course concepts, tools, and techniques, plus a solid understanding of implications, applications, and interrelationships. Ability to apply and express that understanding with meaningful oral and written language.
- B Solid understanding of course concepts, tools, and techniques, plus knowledge of implications, applications, and interrelationships. Capability to converse effectively in the terminology of the course.
- C Knowledge of course fundamentals. Basic understanding or awareness of finer points of course and discipline. Meets minimal expectations of course input criteria.
- D Weakly grasps the essentials of the course with little understanding of the finer points.
- F Unable to communicate an understanding of the basic concepts, tools, or techniques of the course. A failure to measure up to the basic course output goals.

### **Retention of Graded Coursework**

Final exams and all other graded work which affected the course grade will be retained for one year after the end of the course *if* the graded work has not been returned to the student; i.e., if I returned a graded paper to you, it is your responsibility to file it, not mine.

### **Returned Papers**

To protect the confidentiality of your work, you must pick up your own graded paperwork. I will not give your papers to anyone else. Students who miss class sessions when paperwork is returned must arrange for an appointment to retrieve the material.

### **Marshall Technology Policy**

Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the respective professor and/or staff. Use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during academic or professional sessions. ANY e-devices (cell phones, PDAs, I-Phones, Smartphones, Blackberries, other texting devices, laptops, I-pads, ...) must be completely turned off during class time. Upon request, you must comply and put your device on the table in off mode and FACE DOWN. You also may be asked to deposit your devices in a designated area in the classroom. Videotaping faculty lectures is not permitted, due to copyright infringement regulations. Audiotaping may be permitted if approved by the professor. Use of any material or distributed material is reserved exclusively for USC students registered in this class.

### **Academic and Personal Conduct**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Section 11, Behavior Violating University Standards at <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions>. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct at <http://policy.usc.edu/scientific-misconduct>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity <http://equity.usc.edu> or to the Department of Public Safety <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. Reporting incidents is important for the safety of the whole USC community. Another member of the

university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage <http://sarc.usc.edu> describes reporting options and other resources.

### **Support Systems**

Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs [www.usc.edu/disability](http://www.usc.edu/disability) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information <http://emergency.usc.edu> will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technologies.

### **Statement for Students with Disabilities**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. For more information visit [www.usc.edu/disability](http://www.usc.edu/disability).

### **Statement on Academic Integrity**

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *SCampus*, the Student Guidebook, ([www.usc.edu/scampus](http://www.usc.edu/scampus) or <http://scampus.usc.edu>) contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>. Failure to adhere to the academic conduct standards set forth by these guidelines and our programs will not be tolerated by the USC Marshall community and can lead to dismissal.

### **Incomplete Grades**

An incomplete (IN) grade may be assigned due to an “emergency” that occurs after the 12<sup>th</sup> week of classes. An “emergency” is defined as a serious documented illness, or an unforeseen situation that is beyond the student's control, that prevents a student from completing the semester. Prior to the 12<sup>th</sup> week, the student still has the option of dropping the class. Arrangements for completing an incomplete course should be initiated by the student, and negotiated with the instructor. Class work to complete the course should be completed within one calendar year from the date the incomplete was assigned. The IN mark will be converted to an F grade should the course not be completed.

### **Assignment Submission Policy**

Assignments must be turned in on the due date/time electronically via Blackboard.

### **Evaluation of Your Work**

I will do my best to make my expectations for the various exams clear and to evaluate your answers as fairly and objectively as I can. If you feel that an error has occurred in the grading of any question, you may, within one week of the date the exam is returned to you, write me a memo in which you request that

I re-evaluate the assignment. Attach the original exam to the memo, and explain fully and carefully why you think the question should be re-graded. Be aware that the re-evaluation process can result in three types of grade adjustments: positive, none, or negative.

### COURSE READINGS/CLASS SESSIONS

The examinations will take place as scheduled.

I may modify the topic schedule to meet the needs and interests of the class.

The topics below correspond to chapters in the textbook. They are assigned readings that you must read before coming to class. Come prepared to discuss them.

The course meetings will primarily involve discussions and exercises. I will lecture sometimes, but we will primarily use the course sessions to reinforce the lessons in the readings, to discuss current events, and to expand upon the concepts presented in the readings. It is imperative that you read and study the assigned readings before coming to class.

If you are uncertain of an assignment, consult the course web pages on Blackboard.

Read the financial press every day. Come to class prepared to discuss current events in the markets. At a minimum, you must read the front page of the Money & Investing section of *The Wall Street Journal*. The business sections of the *New York Times*, *The Financial Times*, and *Investor's Daily* are also very good. Try reading the finance section of *The Economist* and any relevant special reports. Also, browse the CFA Institute Financial NewsBrief every day—it only takes about a minute. Serious professionals follow current events in their industry. Be a securities industry professional, if only for the next 17 weeks. Reading the news will help you get more out of this class.

I strongly recommend that you read *Reminiscences of a Stock Operator* at your leisure. It is entertaining and very interesting. Although written a century ago, most of its themes remain relevant today.

I also strongly recommend that you read Richard Bookstaber's *A Demon of Our Own Design: Markets, Hedge Funds, and the Perils of Financial Innovation*. This book provides an excellent summary of—and expansion upon—many of the concepts that we cover in this course. It is written at a level that you can understand now, but you will get more out of the book after you have completed the first half of this course.

Date	Day	Topic
Jan 12	M	1 Introduction 2 Trading Stories 3 The Trading Industry
Jan 14	W	4 Orders and Order Properties
Jan 19	M	MLK Holiday — No class
Jan 21	W	<b>Quiz 0</b> 4 Orders and Order Properties (continued)
Jan 25	M	5 Market Structures
Jan 28	W	<b>Quiz 1</b> 6 Order-Driven Markets
Feb 2	M	6 Order-Driven Markets (continued) 7 Brokers



<b>Date</b>		<b>Topic</b>
Feb 4	W	8 Why Do People Trade?
Feb 9	M	<b>Quiz 2</b> 9 Good Markets
Feb 11	W	10 Informed Traders and Market Efficiency
Feb 16	M	Presidents' Day Holiday — No class
Feb 18	W	11 Order Anticipators
Feb 23	M	12 Bluffing and Price Manipulation
Feb 25	W	<b>Quiz 3</b> 13 Dealers
Mar 2	M	14 Bid/Ask Spreads
Mar 4	W	15 Block Trading; Dark pools
Mar 7	M	16 Value-motivated Traders
Mar 11	W	<b>Quiz 4</b> Trading game
Mar 16	M	Spring Recess Holiday
Mar 18	W	Spring Recess Holiday
Mar 23	M	17 Arbitrageurs
Mar 25	W	18 Buy-side Traders 19 Liquidity 20 Volatility
Mar 30	M	No class
Apr 1	W	<b>Quiz 5</b> 21 Liquidity and Transaction Cost Measurement
Apr 6	M	22 Performance Evaluation and Prediction
Apr 8	W	23 Index and Portfolio Markets 24 Specialists
Apr 13	M	<b>Quiz 6</b> 25 Internalization, Preferencing, and Crossing
Apr 15	W	26 Competition within and among Markets
Apr 20	M	27 Floor versus Automated Trading Systems Electronic and High Frequency Trading
Apr 22	W	No class
Apr 27	M	<b>Quiz 7</b> 28 Bubbles, Crashes, and Circuit Breakers

<b>Date</b>		<b>Topic</b>
April 29	W	29 Insider Trading Ethics in Trading
May 4	M	Study day, no class
May 8	F	<b>Final Examination</b> , 11:00 AM - 1:00 PM
May 15	F	University Commencement

### CONTACT INFORMATION

#### Addresses and Telephone Numbers

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(323) 244-1154 cell  
 (323) 933-0888 home  
 (213) 740-6496 office

You may call me at home, but please  
 not before 7:00 AM, after 9:30 PM,  
 on Friday night, or on Saturday.

LHarris@USC.edu  
 LarryHarris.com

#### How to Reach Me

- Drop in during office hours—no appointment is necessary. My office is in Hoffman 806. My office hours this semester are:
 

Mondays	2:00-3:00 PM
Tuesdays	5:00-6:00 PM
- Arrange to meet me by appointment.
- Just drop in. I am in my office most days. It is best (but not necessary) to call ahead to make sure I am available and not occupied.
- Call me on the telephone. If you leave a message, please speak slowly and clearly when you give your phone number. You may call me at work, home or on my cell phone. Please do not call me at home before 7:00 AM, after 9:30 PM, on Friday night, or on Saturday.
- Arrange to dine with me before or after class. Consider inviting your classmates too.
- Send me e-mail at [LHarris@USC.edu](mailto:LHarris@USC.edu). While I am always happy to take questions about course topics, I prefer to respond orally rather than by e-mail. The opportunity to listen and respond generally produces more effective learning. Also, if you have course topic questions, please post them to the Blackboard discussion board where a classmate may answer the question first, and where everyone can see my responses.