Introduction and Course Objectives

“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.

We will address these issues by studying why and how institutions, dealers, and individuals trade. Understanding trader behavior and how market structure affects behavior is the primary course objective.

Target Audience

This course is for anyone who wants to understand how markets work, how people trade, and when active investment management works and fails. The reading assignments and class lectures are appropriate for students who have no market experience.

Experienced traders also will value this course. The economic perspectives that they learn in this course can greatly improve their performance. But students with substantial market experience have little advantage over other students other than initial familiarity with the jargon and institutions.

This course also will benefit students who want to understand the determinants of investment performance. We will spend much time discussing why some people make money while others lose money. These lessons apply to businesses in all competitive industries.
Learning Objectives

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

- Global Objective
  o Explain and use trading terms, concepts, principles, and theories.
- Detailed Objectives
  o Explain how
    ▪ markets operate,
    ▪ traders behave,
    ▪ market structure affects trader behavior, and
    ▪ traders and trading companies lobby policy-makers on market design issues.
  o 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, and
    ▪ identify trading risks and manage them.

A complete and detailed list of the learning outcome statements for this course appears on Blackboard.

Required Materials

- Daily access to *The Wall Street Journal*.

Supplemental Materials

- 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 [https://www2.smartbrief.com/getLast.action?mode=last&b=cfa](https://www2.smartbrief.com/getLast.action?mode=last&b=cfa). You should read it every day.

  Reminiscences is a ghostwritten autobiography of Jesse Livermore. Livermore was a 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.

**Prerequisites**

Formally, either BUAD 215 or BUAD 306. Neither is truly necessary. Familiarity with Investments, Microeconomics, Corporate Finance, Information Technologies, and Statistics is helpful. 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 be 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**

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td><strong>Group projects</strong></td>
<td>Three trading strategy group projects</td>
</tr>
<tr>
<td><strong>Examinations</strong></td>
<td>Two midterms at 20% each</td>
</tr>
<tr>
<td></td>
<td>Final exam</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

Final course grades represent how you perform in the course relative to other students and relative to my expectations for students in the course. 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. Historically, the grade point average for this course is about 3.5. I assign higher or lower average grades based on my perception of the overall performance of the class.

I consider four items when assigning class grades:

1. Your weighted-average standardized score for all exams and other exercises. 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 class grade. I base the standardization only on the scores of students who will receive non-failing class grades.
2. Your weighted-average exam and other exercise scores. This measure does not standardize the scores for each exam and exercise. I adjust the raw scores so that weights given to each examination reflect those in the table above.
3. Your rankings among all students in the class using the above two measures.
4. My impression of the overall achievement of the students in this class relative to that of other students in comparable classes that I have taught in the last few years or am presently teaching in other sections.
Assignments, Examinations, and Grading Detail

Trading Strategy Group Projects

You will participate in three trading strategy group projects during this course. I will assign the members of each of your three groups after the end of the third week of class. Each group will have four to five members.

The three projects respectively will require a written proposal for the implementation of a trading strategy and a subsequent short oral presentation. The proposal will specify the strategy, the required resources and systems to implement the strategy, and the expected profitability of the strategy. The three projects, respectively, will address three types of trading strategies:

1. A fundamental trading strategy,
2. A dealing, arbitrage or technical trading strategy, and
3. An order anticipating or behavioral-based trading strategy.

Your team will decide on the specific strategy. I encourage you to collect whatever information you believe would help you evaluate the profitability of each strategy.

Your group must submit your report by email to me before the 11:59 p.m. deadline to get full credit. Late reports will receive only half credit. The due dates appear in the course calendar below.

Your group report should include the following information in the following order:

1. Your assigned group name.
2. The names of your group members, in alphabetical order by last name.
3. A title for the strategy.
4. A one-sentence description of the strategy.
5. A 100-word abstract of the strategy.
6. A one- or two-sentence description of the organization that would implement the strategy.
7. A section detailing how the strategy would be implemented.
8. A list of the resources required to implement the strategy and your estimate of the costs of assembling these resources.
9. A discussion of the circumstances under which you would expect the strategy to be profitable.
10. A discussion that identifies the risks of implementing the strategy and the circumstances under which you would expect the strategy to lose.
11. A quantitative analysis of the expected profits or losses from operating the strategy.
12. A discussion of how you will evaluate the performance of the strategy and how you will decide to terminate it or expand it.
13. A list of the most important assumptions upon which your analysis is based.
14. A final summary paragraph indicating whether you recommend that the strategy be undertaken.

I will post a simple example of a trading strategy report on Blackboard.

I will grade the quality of the project using the following rubric:

1. Depth of analysis—identification and treatment of relevant risk and profit issues 30%
2. Quality of economic analysis of risks and potential profits 30%
3. Clarity of written presentation 20%
4. Clarity of oral presentation 10%
5. Quality and breadth of any supporting data analyses 5%
6. Insight of proposal (my expectation of the probability that the proposed strategy would be profitable) 5%

Your combined grade on the three projects will be based on
1. the quality grades I assign for of the three projects in which you participate, and
2. the average across all three of your projects of the confidential assessments made by the other members of your group of the strength of your contribution to the production of the group’s report.

I will do several statistical analyses to ensure that your grade most accurately represents your contribution to each project.

I will assign an average project quality grade specific to you based on estimates of a fixed-effects regression model in which I will estimate the mean quality grade for your projects after taking into account variation associated with your fellow teammates and across the three project assignments. I will use the following fixed effects regression model:

\[ \text{ProjectQualityGrade}_{ai} = \text{Student}_i + \text{Assignment}_a + e_{ai} \]

where \( a = 1,2,3 \) indexes the three assigned projects and \( i = 1 \) to \( n \) indexes the \( n \) students in the class.

Your adjusted project quality grade will be the estimated value of \( \text{Student}_i \) for you.

I evaluate your contribution by averaging your peer’s assessments of your contribution across all projects. To this end, I will use a fixed effects regression model in which I will estimate your mean contribution after taking into account variation in how each student rates other students across all three projects, variation specific to your project, and variation across the three assigned projects. I will use the following fixed effects regression model:

\[ \text{Contribution}_{aijg} = \text{Student}_i + \text{StudentEvaluator}_j + \text{Assignment}_a + \text{Group}_g + e_{aijg} \]

where \( g = 1 \) to \( 3k \) will index each group project with \( k \) being the number of groups per assignment, and \( j = 1 \) to \( n \) indexing the \( n \) students in the class. Your adjusted project contribution will be the estimated value of \( \text{Student}_i \) for you.

In fairness to all students, you may not discuss how you will evaluate any of your peers. Your evaluation of your peers should be based on your impressions only. In no event should you come to any agreements with your peers about how you or they will evaluate any student.

In addition to asking you about the contributions that your peers made to the project, I will also ask you about the confidence you have in each of your assessments. Accordingly, if you have no knowledge about the contribution of a peer—perhaps because you were sick and did not observe the peer’s contribution, you will have an opportunity to tell me that your opinion is not well founded. I will adjust the weights in the regression to reflect any concerns I may have about the reliability of a reported contribution.

I will compute your grade on the three projects as the product of your adjusted project quality grade and your adjusted project contribution evaluation, after standardizing both scores to a mean of 10 and a standard deviation of 2.5 across all students in the class. I may adjust the results upwards or downwards if I believe that the class in aggregate has performed better or worse than my expectations for this exercise.

Finally, I will reduce by one third your total project grade for every peer evaluation that you do not submit on time.

I designed these statistical methods to minimize the impact on your grade of variation in the contributions of the other members in your group. The grading scheme maximizes the individual incentives to cooperate to maximize the quality of your group reports.
Examinations

The examinations will consist of constructed answer (essay, one-sentence, one word) questions or multiple-choice questions. I usually use constructed answer questions on the midterms and multiple-choice questions on the final. I structure the exams so that well-prepared students finish well before the end of the allocated time.

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

The midterms and the final examination all will be cumulative examinations, but most topics on the midterms come from material covered since the previous midterm. I occasionally reuse questions from previous examinations that I gave you—especially when poor performance on an important question suggests students did not give as much attention studying a topic as I believe that it merited. Accordingly, I strongly suggest that you review your graded midterms to ensure that you can correctly answer questions that you missed in the past.

When writing exams, I always refer to the detailed list of the learning outcome statements that are posted on Blackboard. Every question on an exam will involve knowledge identified by one or more of these learning outcome statements.

Old examinations with answers are posted on Blackboard. I do not post exams with multiple-choice questions.

Class Sessions and Preparation

Most of our class sessions will be “inverted.” We will use the inverted class sessions primarily for group and class discussions, problem-solving exercises, and occasional trading games. To get the most benefit from the class sessions, you should come to class well prepared. Read the assigned readings before class.

I occasionally will lecture on topics that do not appear in the textbook or to highlight issues that appear in the text. If these topics appear in the list of learning outcome statements, they may appear on your examinations.

Some Comments about Work Habits

Good discipline is a key attribute of successful businesspeople. The ability to work independently toward a goal is important to career success because supervisors often do not have the time or the desire to closely manage their subordinates. And good discipline obviously is essential for entrepreneurs who have no supervisors.

University instructors vary in the demands that they place on how their students study and participate in their courses. Some instructors require regular course attendance and the submission of regular homework assignments, and they enforce these requirements by basing course grades on these activities. Others demand less day-to-day discipline.

Instructors who structure their students’ daily lives often get their students to learn more specific course knowledge than do instructors who place fewer daily demands on their students. But they do so at a cost. Students subject to such discipline have less flexibility when managing their schedules, and concerns about their grades may force them to waste time in unproductive activities, for example, doing homework involving topics that they already know well.

Your grade in this course will not depend directly on whether you attend classes or turn in your homework. However, my experience gathered over almost four decades of teaching confirms that those students who regularly attend classes and prepare their homework learn more, perform better on exams,
and thus get better grades in the course. Accordingly, I strongly encourage you to attend classes regularly and to come to class prepared if learning and superior performance are among your objectives for enrolling in this course.

Having said all this, I also know that many students prefer the discipline associated with knowing that someone is keeping track of their performance. If you are such a person, I will keep track of your attendance and the submissions of your homework. Simply sign the daily attendance sheet and turn in your homework through Blackboard.

**Optional Homework**

If you would like the discipline of turning in homework, here is what I suggest that you do: On most class days, submit via Blackboard a short write-up explaining in your own words the knowledge referred to in three learning outcome statements ("LOSs"). The LOS list is posted on Blackboard. In that list, statements marked with a hash mark (#) are the LOSs that I suggest that you write up. Of course, you can write up additional LOSs. I’ve noted that students who have written out in their own words all the LOSs during the semester have all done well in the course.

To avoid paraphrasing text from the book, I recommend that you write your first draft of your write-ups while the book is closed, at least one-half hour after you read the relevant passages. Then go back to the book to confirm that you are satisfied with your explanation, and amend it if necessary, again using your own words.

The LOSs that I selected for these optional homework assignments are among the more important LOSs for this class. Note, however, that these selected LOSs do not include all of the more important LOSs. While I think that each LOS is important (I otherwise would not have included them on the list), some are more important than others (but all may be the subject of an exam question). If you would like help identifying the most important LOSs, ask me in class, during office hours, or call me.

**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 reevaluate the assignment. Attach the original exam to the memo and explain fully and carefully why you think the question should be regraded. Be aware that the reevaluation process can result in three types of grade adjustments: positive, none, or negative.

**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 the workplace. In this course, you will engage in many 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 excel further in your career. Your ability to think critically is an important part of the evaluation/grading process in this course.
Marshall Guidelines

Add/Drop Process

Most Marshall classes are open enrollment (R-clearance) through the Add deadline. If an open seat is available, students can add the class using Web Registration. If the class is full, students will need to continue checking the Schedule of Classes (https://classes.usc.edu/) to see if space becomes available. Students who do not attend the first two class sessions may be dropped from the course if they do not notify the instructor before their absence.

Further, if you are absent six or more times before April 10, 2020 (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

Assignment/Exam Grading Policy: As the instructor, I determine what qualifies as an accurate grade on an assignment, exam, or another deliverable, and my evaluation of the performance of each student is the final basis for assigning grades for the class. 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

I retain final exams and all other graded works that affect the course grade for one year after the end of the course if I have not returned the graded work to the student. If I returned graded work to you, you are
responsible for filing it.

**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 I return paperwork must come to office hours or arrange 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 or staff. The 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, iPads, other texting devices, laptops, I-pods) 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 might also 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. The use of any recorded or distributed material is reserved exclusively for the USC students registered in this class.
USC Statement on Academic Conduct and Support Systems

Academic 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 Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

I take my responsibility to promote good academic and personal contact seriously. Regrettably, my past reports of reportable offenses (and those of my colleagues) have led to serious consequences for irresponsible students.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on-call studenthealth.usc.edu/counseling
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on-call suicidesventionlifeline.org
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on-call studenthealth.usc.edu/sexual-assault
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298 equity.usc.edu, titleix.usc.edu
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298 usc-advocate.symplicity.com/care_report
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776 dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test-taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710
uscsa.usc.edu
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101
diversity.usc.edu
Information on events, programs, and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on-call
dps.usc.edu, emergency.usc.edu
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call
dps.usc.edu
Non-emergency assistance or information.

Students with Disabilities
USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability that may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP provides certification for students with disabilities and helps arrange the relevant accommodations. 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 GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

Emergency Preparedness/Course Continuity
In case of a declared emergency, if travel to campus is not feasible, the USC Emergency Information web site (http://emergency.usc.edu/) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC’s Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies.

Please make sure you can access this course in Blackboard and retrieve the course syllabus and other course materials electronically. You should check Blackboard regularly for announcements and new materials. In the event of an emergency, the ability to access Blackboard will be crucial. USC’s Blackboard learning management system is available at blackboard.usc.edu.
Course Calendar

Class Sessions, Project Due Dates, and Reading Assignments

Some important prior commitments will prevent me from attending several scheduled classes. Accordingly, we will meet at our regularly scheduled time on four Fridays at locations that I will announce upon confirmation. The Friday class meetings will occur on January 24, February 14, April 17, and May 1. I will record these lectures so that you can watch them if you are unable to attend. Your continued registration in this course will constitute acceptance of these arrangements.

All examinations will take place as scheduled. The homework assignments should be done before class starts. The three trading strategy group projects are due at 11:59 p.m. on the days indicated below.

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

The topics below correspond to numbered chapters in the textbook, Trading and Exchanges. The assigned readings for each date include these chapters and any other readings indicated below. The monography Trading and Electronic Markets is available for free from the CFA Institute Research Foundation. (See required materials above.) Complete the readings before coming to class and come prepared to discuss them.

The course meetings will involve discussions, exercises, and lectures. When I lecture, I will primarily reinforce and expand upon the lessons in the readings. I often will not review them as I will assume that you have done the readings. You must read and study the assigned readings before coming to class.

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 without the benefit of this course, but you will get more out of the book after you have completed the first half of the course.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics and Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 13</td>
<td>M Introduction</td>
</tr>
<tr>
<td></td>
<td>Introductory Trading Games</td>
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<tr>
<td></td>
<td>Read Chapter 1 – Introduction</td>
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<td></td>
<td>Read Chapter 2 – Trading Stories</td>
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<td></td>
<td>Read Chapter 3 – The Trading Industry</td>
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<td></td>
<td>Read the Forward and Chapter 1 of Trading and Electronic Markets</td>
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<td>Jan 15</td>
<td>W Orders and Order Properties</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 4 – Orders and Order Properties</td>
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<tr>
<td>Jan 20</td>
<td>M No Class (MLK Holiday)</td>
</tr>
<tr>
<td>Jan 22</td>
<td>W Orders and Order Properties (continued)</td>
</tr>
<tr>
<td>Date</td>
<td>Topics and Assignments</td>
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| Jan 24 | F  Friday Class  
Market Structures  
Read Chapter 5 – Market Structures |
| Jan 27 | M  Introduction to Order-Driven Markets: Auction Bidding Strategies  
Read “Notes on Auction Bidding Strategies”  
Read Chapter 6 – Order-Driven Markets  
Optional: 6:00 p.m. Dinner at Harris house |
| Jan 29 | W  Order-Driven Markets |
| Feb 3  | M  Brokers and Ethics in Trading  
Read Chapter 7 – Brokers  
Read pages v. and 1-12 of CFA Standards of Practice Handbook |
| Feb 5  | W  Why People Trade  
Read Chapter 8 – Why Do People Trade?  
Read Chapter 2 of Trading and Electronic Markets |
| Feb 10 | M  No Class (Prof. Harris at SEC FIMSAC meeting) |
| Feb 12 | W  Midterm Exam 1 |
| Feb 14 | F  Friday Class  
Good Markets and Informed Trading  
Read Chapter 9 – Good Markets  
Read Chapter 10 – Informed Traders and Market Efficiency  
Read Chapter 3 of Trading and Electronic Markets |
| Feb 17 | M  No Class (Presidents’ Day Holiday) |
| Feb 19 | W  Order Anticipators  
Read Chapter 11 – Order Anticipators |
| Feb 24 | M  Bluffing and Price Manipulation  
Read Chapter 12 – Bluffing and Price Manipulation |
| Feb 26 | W  Dealers  
Read Chapter 13 – Dealers |
| Mar 1  | Sunday  Fundamental Trading Strategy Group Project Due at 11:59 p.m. |
| Mar 2  | M  Dealer Trading Game |
| Mar 4  | W  Bid/Ask Spreads  
Read Chapter 14 – Bid/Ask Spreads |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics and Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 9</td>
<td><strong>M</strong> Block Trading and Value-Motivated Traders</td>
</tr>
<tr>
<td></td>
<td>Winner’s Curse Game</td>
</tr>
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<td></td>
<td>Read Chapter 15 – Block Trading</td>
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<td></td>
<td>Read Chapter 16 – Value-motivated Traders</td>
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<tr>
<td></td>
<td>Read “Winner’s Curse Mathematics”</td>
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<tr>
<td>Mar 11</td>
<td><strong>W</strong> Arbitrageurs</td>
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<tr>
<td></td>
<td>Read Chapter 17 – Arbitrageurs</td>
</tr>
<tr>
<td>Mar 16</td>
<td><strong>M</strong> Spring Recess Holiday</td>
</tr>
<tr>
<td>Mar 18</td>
<td><strong>W</strong> Spring Recess Holiday</td>
</tr>
<tr>
<td>Mar 23</td>
<td><strong>M</strong> Buy-side traders, Liquidity, and Volatility</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 18 – Buy-side Traders</td>
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<tr>
<td></td>
<td>Read Chapter 19 – Liquidity</td>
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<td></td>
<td>Read Chapter 20 – Volatility</td>
</tr>
<tr>
<td>Mar 25</td>
<td><strong>W</strong> Midterm Exam 2</td>
</tr>
<tr>
<td>Mar 29</td>
<td>Sunday Dealing, Arbitrage, or Technical Trading Strategy</td>
</tr>
<tr>
<td></td>
<td>Group Project Due at 11:59 p.m.</td>
</tr>
<tr>
<td>Mar 30</td>
<td><strong>M</strong> Transaction Cost Measurement</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 21 – Liquidity and Transaction Cost Measurement</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 4 of <em>Trading and Electronic Markets</em></td>
</tr>
<tr>
<td>Apr 1</td>
<td><strong>W</strong> Investment Performance</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 22 – Performance Evaluation and Prediction</td>
</tr>
<tr>
<td>Apr 6</td>
<td><strong>M</strong> Futures Trading Game</td>
</tr>
<tr>
<td>Apr 8</td>
<td><strong>W</strong> Index and Portfolio Markets, Specialists</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 23 – Index and Portfolio Markets</td>
</tr>
<tr>
<td></td>
<td>Browse Chapter 24 - Specialists</td>
</tr>
<tr>
<td>Apr 12</td>
<td>Sunday Order Anticipating or Behavioral-Based Trading</td>
</tr>
<tr>
<td></td>
<td>Strategy Group Project Due at 11:59 p.m.</td>
</tr>
<tr>
<td>Apr 13</td>
<td><strong>M</strong> Off-Exchange Trading and Dark Pools</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 25 – Internalization, Preferencing, and Crossing</td>
</tr>
<tr>
<td>Apr 15</td>
<td><strong>W</strong> Competition within and among Markets</td>
</tr>
<tr>
<td></td>
<td>Read Chapter 26 – Competition within and among Markets</td>
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<tr>
<td>Date</td>
<td>Topics and Assignments</td>
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<tr>
<td>April 17</td>
<td><strong>Friday Class</strong></td>
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<tr>
<td></td>
<td><strong>Electronic Trading</strong></td>
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<tr>
<td></td>
<td>Read Chapter 27 – Floor versus Automated Trading Systems</td>
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<td></td>
<td>Electronic and High-Frequency Trading</td>
</tr>
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<td></td>
<td>Read Chapters 5-7 of <em>Trading and Electronic Markets</em></td>
</tr>
<tr>
<td>Apr 20</td>
<td>M <strong>No Class</strong> (Prof. Harris at Q Group Conference)</td>
</tr>
<tr>
<td>Apr 22</td>
<td>W <strong>No Class</strong> (Prof. Harris at IB annual shareholders meeting)</td>
</tr>
<tr>
<td>Apr 27</td>
<td>M <strong>No Class</strong> (Prof. Harris at SEC FIMSAC meeting)</td>
</tr>
<tr>
<td>Apr 29</td>
<td>W <strong>Extreme Volatility</strong></td>
</tr>
<tr>
<td></td>
<td>Read Chapter 28 – Bubbles, Crashes, and Circuit Breakers</td>
</tr>
<tr>
<td></td>
<td>Read Appendix A of <em>Trading and Electronic Markets</em></td>
</tr>
<tr>
<td>May 1</td>
<td>F <strong>Friday Class</strong></td>
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<tr>
<td></td>
<td><strong>Insider Trading and Review</strong></td>
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<tr>
<td></td>
<td>Read Chapter 29 – Insider Trading</td>
</tr>
<tr>
<td>May 4</td>
<td>M Study day, no class</td>
</tr>
<tr>
<td>May 8</td>
<td>F <strong>Final Examination</strong>, 11:00 a.m. – 1:00 p.m. in JFF 236</td>
</tr>
<tr>
<td>May 10</td>
<td>F University Commencement</td>
</tr>
</tbody>
</table>
CONTACT INFORMATION

Addresses and Telephone Numbers

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Fred V. Keenan Chair in Finance (323) 933-0888 home
USC Marshall School of Business (213) 740-6496 office
Hoffman Hall 806
Los Angeles, CA 90089-0804

LHarris@USC.edu
LarryHarris.com

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

How to Reach Me

1. Drop-in during office hours—no appointment is necessary. My office is in Hoffman 806. My office hours this semester are:
   - Mondays 2:00 – 3:30 p.m.
   - Thursdays 1:30 – 3:00 p.m.

2. Arrange to meet me by appointment.

3. 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.

4. 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, at home, or on my cell phone. Please do not call me at home before 7:00 a.m., after 9:30 p.m., on Friday night, or Saturday.

5. Arrange to dine with me before or after class. Consider inviting your classmates too. On Wednesdays, I often eat lunch at 11:00 a.m. at the farmer’s market on McCarthy Quad. Look for me on the west side of the quad on a bench or at a picnic table.

6. Send me an e-mail at 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 appropriately usually produces more effective learning. Also, if you have course topic questions, consider posting them to the Blackboard discussion board where a classmate may answer the question first, and where everyone can see my responses.