



Business A722/F722

Market Trading and Risk Management

Winter 2019 Course Outline

Finance and Business Economics

DeGroote School of Business

McMaster University



COURSE OBJECTIVE

This cross-listed (Accounting and Financial Management Services & Finance and Business Economics) experimental course attempts to develop practical skills in trading financial securities with a focus on risk management and return enhancement through role-playing. The course deals comprehensively with the increased importance played by risk and uncertainty in today's financial markets.

INSTRUCTOR AND CONTACT INFORMATION

Instructor: **Dr. John J. Siam**

Office Hours:
 Mondays 10:30 – 11:30 DSB 306
 Wednesdays 1:30 – 2:30 RJC 126
 and by appointment
 Email: siamj@mcmaster.ca
 Tel: (905) 525-9140 x27028

TA: Adrian Denomy

Office Hours:
 TBA
 Email: denomyaj@gmail.com

Class location: RJC 126, Horizon Investment Decision Center (HIDC)
Course Website: <http://avenue.mcmaster.ca>

COURSE ELEMENTS

Avenue:	Yes	Leadership:	Yes	IT skills:	Yes	Global view:	Yes
Participation:	Yes	Ethics:	Yes	Numeracy:	Yes	Written skills:	Yes
Evidence-based:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Experiential:	Yes	Guest speaker(s):	Yes	Final Exam:	No		

SELECTION CRITERIA FOR THE COURSE

Prerequisites: Completion of F600 (Managerial Finance) in good standing, **enrolment is limited to a maximum of 20 students.**



COURSE DESCRIPTION

In this experiential course, students are introduced to theoretical and empirical issues of different financial instruments, their valuation methodology, and their institutional uses in risk management. Market microstructure knowledge provides students guidance in implementing their trading strategies. Students are able to trade money market instruments, bonds, equities, indices, ETFs, currencies, commodities and their corresponding derivatives; focusing on trading strategies that minimize market exposure through risk measurement. Pedagogically, students are assigned securities and their corresponding derivatives to trade subject to financial markets outlook and their expectations. Fictional accounts of one million dollar per currency (Canadian/US) created and evaluated at the end of the course. In addition, students select their subgroups that act as individual investment/trading firms. Students will supply market reports with buy, hold, and sell recommendations. The reports must include the students' outlook for North American Markets and form the basis for the individual reasoning and trading strategies.

COURSE ORGANIZATION

The experiential course uses a combination of lectures, presentations, supervised and unsupervised trading. The class meets once per week for a three-hour session. Classes and trading sessions conducted at the Horizon Exchange Traded Funds Investment Decision Centre (HIDC). Supervised trading and trading cases (see below) conducted during class time; the students expected to justify their trading positions/decisions using due diligence and market microstructure. The trading sessions used to evaluate students' trading positions and offer suggestions and recommendations. Trading strategies scrutinized during lectures. In addition, students are responsible for trading their portfolio a maximum of four hours per week (at times of their choice). All trades logged to prevent falsification of trading histories.

LECTURES CONTENT

The aim of the course is to provide a comprehensive treatment of financial risk and uncertainty faced by firms and individuals exposed to financial markets. The course attempts to develop practical skills by focusing on hedging and hedging strategies, financial engineering, risk management (market risk), measuring and monitoring market risk across complex and volatile financial market.

Lectures

The course includes lectures that review stocks, bonds, money and currency markets, as well as, the derivatives market. The focus is on trading and trading strategies that utilize cash securities in combination with derivatives. Students introduced to different financial instruments, institutional details, back office, markets microstructure, exchange and over-the-counter derivatives, principles of valuation, risk management and hedging techniques. In class, speculative strategies discussed and examined in detail. The specific topics cover: exchange and over-the-counter trading, market microstructure, reading the "signs" and "pulse" of the market. Understanding the electronic book, risk/reward analysis, arbitrage, government and corporate securities, selection criteria, degrees of trading aggressiveness, uses of derivatives, such as, covered writing philosophy, ratio call writing,



importance of Delta in hedging, managing interest rate exposure, derivatives arbitrage, and various advanced and exotic various exotic spreads.

SKILL BUILDING TOOLS OF THE TRADE

“Trading Centres put emphasis on experiential learning and encourage critical reasoning and creative thinking. Intensive workshops, team projects, and real world experience with traditional lectures establishes a dynamic forum for producing competent managers. Partnerships with industry ensure that the skills and competencies developed are relevant in today’s marketplace” (Siam¹). The course uses a number of tools that provide core and discipline specific competencies that link education and workplace. Students who are able to build industry tools are more valuable in the workplace and open new career opportunities for themselves.

I. *Real-time Trading Sessions*

At the beginning of the course each student is assigned equities, fixed income securities (together, the “cash securities”) and a fictional account of one million dollars. During the first four weeks, students trade the cash securities. In week five, students are able to trade derivatives on their underlying securities. They are able to employ risk-minimizing strategies that typically involves trading combinations of cash and derivatives securities.

II. *Group Monthly Market and Securities (MMSA) Analysis*

At the offset, students form groups (Maximum five members); each group will submit two Monthly Market and Securities Reports (MMSA). The reports present each group’ outlook for relevant markets (Debt, Commodities, Currencies, Equity Markets...etc.), plus detailed fundamental and market microstructure analysis of the securities assigned to each member of the group. The reports include recommendations (buy, sell, hold), and present the basis of the individual trading strategies. The MMSA reports will assist students in writing the Final Report.

The two Group Reports are due in class, week 4 and week 8 respectively.

III. *Tutorials*

A number of tutorials designed to transfer technical and professional knowledge and knowhow as part of the experiential learning process. The interactive and specialized tutorials are used to teach by examples the use of software like Thomson Reuters’ Eikon, Bloomberg professional, Financial Trading System (FTS) software and tutor trading processes and techniques².

IV. *Trading Cases*

A number of trading cases assigned throughout the course. The objectives of the trading cases is to provide an understanding of important market microstructure concepts, such as, trading, market making, market taking, price discovery, bid-ask spreads/width and market depth, trading frequency and trading volume. An ECN (Electronic Communications Network) installed at the HIDC network that forms a dealing system that allows the instructor to run cases using the students as the trading crowd. Each case poses a different trading question. The trading problem enables

¹ Siam, J. (2005), “University Trading Centers and their Role in Business Education”, *Journal of Financial Education*, Vol. 31 Lead Article.

² See Course Outline.



students to apply finance concepts in formulating their trading strategies. *Typically, before each trading session the students quizzed on the assigned case.*

V. Traders in Residence Speaker Series – TiR

The trader-in-residence program is unique to DeGroote School of Business. The program designed to add market reality, street insights and professional expertise to the academic experience. Professionals from different segments of financial services industry visit DeGroote School of Business on a regular basis to discuss a variety of current industry subjects and act as advisors to students. The program is an additional tool that enhances the students' broad industry prospective and knowledge. The aim of the program is to enhance students' knowledge, networking and offer professional views and experiences. The program recognized by MacLean's and Canadian business magazines, and had a positive influence on McMaster's ranking among Canadian universities. ***Attendance is compulsory and part of the course curriculum; failure to attend the 2 scheduled TiR sessions will result in a 2 marks deduction for each missed session applied against your final grade. It is the student responsibility to sign the TiR attendance sheet designated for the trading classes.***

VI. Individual Final Project

The individual final project is a record of the student trading activities, trading justifications, summary of return(s) on trading positions, analysis of market risk (inherent in your trading), collection of students acquired market insight and savvy. The report must build on the student group assignments (and not a copy of MMSA) with emphases on individual reasoning and value added. The report starts with executive summary followed by an economic review detailing; universal economic outlook, markets outlook and outlook of your trading horizon. The final report summarizes weekly expectations in a coherent manner, includes in-depth analysis and justification for the trading activities. The grade received based on the final value of the portfolio, return on investment, market and securities analysis, individual reasoning, risk management applications and "the manner" in which the wealth was accumulated³.

Participation and Conduct

Strict adherences to the codes of conduct established by the DeGroote Trading Centers are prerequisites. Students reminded that they must adhere to the standards of academic ethics of the University. The standards discuss in the booklet of Senate Policy Statements provided to you at registration and are available from the Senate Office. Any deviations from the norms may lead to disciplinary actions.

LEARNING OUTCOMES

Upon completion of this course, students will be able to complete the following key tasks:

- ✓ Play the role of the decision maker(s) as trader or/and as a portfolio manager. In two setting: as an individuals and as part of your group (firm);
- ✓ Use different platforms (Reuters, Bloomberg...etc.) to assess information, to evaluate and to forecast market direction and companies prospects;

³ See Final Project outline on Avenue.



- ✓ Calculate all necessary industry metrics, marketing information, financial ratios and trends to defend your market view and recommendations;
- ✓ Identify important market opportunities and challenges facing a market/firm and setting out a course of action (strategy) to benefit from them;
- ✓ Implement changes (risk management techniques), as necessary, in order to enhance and protect your allocated capital;
- ✓ Acquire and develop networking skill through the TiR visits that might open career doors in financial services industry.

REQUIRED COURSE MATERIALS AND READINGS

THE Trading Manual, Forth Canadian Edition Version 4.0, John J. Siam \$120.00
Available at Horizon Exchange Traded Funds Investment Decision Centre.

Lecture Notes, Assignment and other course content Free

Download from the F722 website (<http://avenue.mcmaster.ca>)

USB drive is required to save your trades and information from the trading HIDC platforms.

EVALUATION

Learning in this course result primarily from lectures, related readings, assignments, trading simulations, TiR presentations, trading cases, group reports, final project and in class discussions. All works evaluated on an individual basis except in certain cases where group work is expected. In these cases group members will share the same grade adjusted by peer evaluation. Your final grade calculated as follows:

COMPONENTS AND WEIGHTS

The components of the course grade calculated as follows, tentatively. The instructor reserves the right to modify the weightings to adjust for more or less material covered during the semester.

COMPONENTS	PERCENT
2 Monthly Group Market and Securities Analysis Reports ⁴ (MMSA)	10
Best 5 out of 6 Trading Cases	10
Two Midterm Exams	40
Individual Final Project ⁵	40
Total	100%
Traders in Residence Speaker Series – TiR	0
Optional Project ⁶	3 Marks
Participating in DeGroote MarketWatch ⁷	3 Marks

⁴ Reports are due in class; late reports is subject to 20%/day penalty.

⁵ The Final Project is due on the Monday after the last lecture at 5 P.M., overdue due penalty for the final project 5 marks per day. That is equivalent to 12.5% per day.

⁶ To be submitted with the Final Project as an Appendix.

⁷ Upon approval of submitted material/work.



NOTE: The use of a McMaster standard calculator is allowed during examinations in this course. See McMaster calculator policy at the following URL:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/examinationindex.html>

Grade Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme.

LETTER GRADE	PERCENT	LETTER GRADE	PERCENT
A+	90 - 100	B	70 - 74
A	85 - 89	B-	60 - 69
A-	80 - 84	F	00-59
B+	75 - 79		

PLACES TO GET HELP WITH YOUR WORK:

Horizon Exchange Traded Funds Investment Decision Centre (HIDC) RJC 126 and financial web sites (listed on the Trading Center web site <http://trading.degroote.mcmaster.ca/>).

Communication and Feedback

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean:

<http://www.degroote.mcmaster.ca/curr/emailchairs.aspx>

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Administrative Assistant. Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

EXTRACURRICULAR ACTIVITIES

▪ DeGroote MarketWatch (<http://trading.degroote.mcmaster.ca/degroote-marketwatch/>)

The weekly *DeGroote MarketWatch (DMW)* is financial letter designed to inform/educate DeGroote and the surrounding communities. The *DMW* prepared mostly by students and supervised by myself serves as an experiential training ground allowing dedicated students to gain hands on experience in concaving to readers market information and commentary. The *DMW* tracks the pulse of markets, business news, finance information, commentary, investment tools, and stories of interest submitted by students. Components of the *DMW* financial letter are:

- ✓ Market Indices: Summarizes the week major markets' activities (numbers and charts).
- ✓ Economic Calendar: Outlines the next week's major economic releases.
- ✓ Canadian Market Summary: Highlights last week's major events.
- ✓ Market Outlook: Expectations for the upcoming week.



- ✓ Story of Interest: An article that highlights a recent story submitted either by a student, faculty member, or by an industry professional. To submit a story of interest for a possible publication in the DeGroote MarketWatch.

It is highly recommended that all students signup to receive the weekly DeGroote MarketWatch update (at <http://trading.degroote.mcmaster.ca/degroote-marketwatch/marketwatch-signup/>).

ACADEMIC DISHONESTY

It is the student's responsibility to understand what constitutes academic dishonesty. Please refer to the University Senate Academic Integrity Policy at the following URL:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>

This policy describes the responsibilities, procedures, and guidelines for students and faculty should a case of academic dishonesty arise. Academic dishonesty is defined as to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. Please refer to the policy for a list of examples. The policy also provides faculty with procedures to follow in cases of academic dishonesty as well as general guidelines for penalties. For further information related to the policy, please refer to the Office of Academic Integrity at:

<http://www.mcmaster.ca/academicintegrity>

MISSED ACADEMIC WORK

Missed Mid-Term Examinations / Tests / Class Participation

Where students miss a regularly scheduled mid-term or class participation for legitimate reasons as determined by the MBA Academic Services Office, the weight for that test/participation will be distributed across other evaluative components of the course at the discretion of the instructor. Documentation explaining such an absence must be provided to the MBA Academic Services Office within five (5) working days upon returning to school.

To document absences for health related reasons, please provide the Petition for Relief for MBA Missed Term Work and the McMaster University Student Health Certificate which can be found on the DeGroote website at <http://mbastudent.degroote.mcmaster.ca/forms-and-applications/>. Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. University policy states that a student may submit a maximum of three (3) medical certificates per year after which the student must meet with the Director of the program.

To document absences for reasons other than health related, please provide the Petition for Relief for MBA Missed Term Work and documentation supporting the reason for the absence.

Students unable to write a mid-term at the posted exam time due to the following reasons: religious; work-related (for part-time students only); representing university at an academic or varsity athletic event; conflicts between two overlapping scheduled mid-term exams; or other extenuating circumstances, have the option of applying for special exam arrangements. Such requests must be



made to the MBA Academic Services Office at least ten (10) working days before the scheduled exam along with acceptable documentation. Instructors cannot themselves allow students to unofficially write make-up exams/tests. Adjudication of the request must be handled by the MBA Academic Services Office.

If a mid-term exam is missed without a valid reason, students will receive a grade of zero (0) for that component.

Missed Final Examinations

A student who misses a final examination without good reason will receive a mark of 0 on the examination.

All applications for deferred and special examination arrangements must be made to the MBA Academic Services Office. Failure to meet the stated deadlines may result in the denial of these arrangements. Deferred examination privileges, if granted, must be satisfied during the examination period at the end of the following term. There will be one common sitting for all deferred exams.

Failure to write an approved deferred examination at the pre-scheduled time will result in a failure for that examination, except in the case of exceptional circumstances where documentation has been provided and approved. Upon approval, no credit will be given for the course, and the notation N.C. (no credit) will be placed on the student's transcript. Students receiving no credit for a required course must repeat the course. Optional or elective courses for which no credit is given may be repeated or replaced with another course of equal credit value.

Requests for a second deferral or rescheduling of a deferred examination will not be considered.

Any student who is unable to write a final examination because of illness is required to submit the Application for Deferred MBA Final Examination and a statement from a doctor certifying illness on the date of the examination. The Application for Deferred MBA Final Examination and the McMaster University Student Health Certificate can be found on the DeGroote website at <http://mbastudent.degrotee.mcmaster.ca/forms-and-applications/> Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. Students who write examinations while ill will not be given special consideration after the fact.

In such cases, the request for a deferred examination privilege must be made in writing to the MBA Academic Services Office within five business days of the missed examination.

Special examination arrangements may be made for students unable to write at the posted exam time due to compelling reasons (for example religious, or for part-time students only, work-related reasons):



- Students who have religious obligations which make it impossible to write examinations at the times posted are required to produce a letter from their religious leader stating that they are unable to be present owing to a religious obligation.
- Part-time students who have business commitments which make it impossible to write examinations at the times posted are required to produce a letter on company letterhead from the student's immediate supervisor stating that they are unable to be present owing to a specific job commitment.

In such cases, applications must be made in writing to the MBA Academic Services Office at least ten business days before the scheduled examination date and acceptable documentation must be supplied.

If a student is representing the University at an academic or athletic event and is available at an overlapping scheduled time of the test/examination, the student may write the test/examination at an approved location with an approved invigilator, as determined by the MBA Academic Services Office.

In such cases, the request for a deferred examination privilege must be made in writing to the MBA Academic Services Office within ten business days of the end of the examination period.

Note: A fee of \$50 will be charged for a deferred exam written on campus and a fee of \$100 for deferred exams written elsewhere. In cases where the student's standing is in doubt, the Graduate Admissions and Study Committee may require that the student with one or more deferred examination privileges refrain from re-registering until the examination(s) have been cleared.

STUDENT ACCESSIBILITY SERVICES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is:

<http://sas.mcmaster.ca>

POTENTIAL MODIFICATIONS TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. **It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.**



Business A722/F722
Market Trading and Risk Management
Winter 2019 Course Outline

Week	Topics	Material Covered
1	Lecture 1: Introduction to Financial Markets <i>Tutorial 1: Tools of The Trade</i>	Chapter 1 & 2 <i>Appendix 2A & AH</i>
2	Lecture 2: The Cash Market <i>Tutorial 2: Start Trading</i>	Chapter 3 <i>Appendix 1A & AH</i>
3	Lecture 3: Market Direction <i>Tutorial 3: FTS Interactive Cases plus Trading Case RE1s</i>	Chapter 4 <i>Avenue Handout (AH)</i>
4	Lecture 4: Interest Rates Dynamics and Market Outlook <i>Tutorial 4: Thomson Reuters Eikon plus Trading Case OP1s</i> <i>In class Trading Case RE1s (practice)</i> Deadline: First Group Market & Securities Analysis Report Start Trading your Securities in FTS Real Trader	Chapter 5 <i>Avenue Handout (AH)</i>
5	MID-TERM EXAM 1 (During class at 2:30 PM) <i>Tutorial 5: Bloomberg</i> <i>In class Case FTS Trading Case OP1s (practice)</i>	Duration 80 minutes <i>Avenue Handout</i>
6	Lecture 5: The Option Market <i>Tutorial 6: RE3s</i> <i>In class FTS Trading Case OP1s (practice)</i> Deadline to Add Securities to FTS Real Time Trader (Oct. 19, 2018)	Chapter 6 <i>Avenue Handout (AH)</i>
7	Lecture 6: Trading with Options: The Basics <i>Tutorial 7: Trading Case OP2s</i> <i>In class FTS Trading Case RE3s (for marks)</i>	Chapter 7 <i>Avenue Handout (AH)</i>
8	Lecture 7: Delta Trading <i>Tutorial 8: Trading Case OP4s</i> <i>In class FTS Trading Case OP2s (for marks)</i> Deadline: Second Group Market & Securities Analysis Report	Chapter 8 <i>Avenue Handout (AH)</i>
9	Lecture 8: Directional Spreads – Spreading Options <i>Tutorial 9: Trading Case B03as</i> <i>In class FTS Trading Case OP4s (for marks)</i>	Chapter 9 & 10 <i>Avenue Handout (AH)</i>
10	MID-TERM EXAM 2 (During class at 2:30 PM) <i>Free Trading</i>	Duration 80 minutes
11	Lecture 9: Trading with Futures <i>Tutorial 10: IN2s</i> <i>In class FTS Trading Case B03as (for marks)</i>	Chapter 12 & 13 <i>Avenue Handout (AH)</i>
12	Lecture 10: Spreading Interest Rates and Index Futures <i>Tutorial 11: Trading Case FX2s</i> <i>In class FTS Trading Case IN2s (for marks)</i>	Chapter 14 & 15 <i>Avenue Handout (AH)</i>
13	Lecture 11: Arbitrage and Advanced Strategies <i>In class FTS Trading Case FX2s (for marks)</i>	Chapter 11 & 16
FINAL PROJECT DEADLINE Deadline: Due on the Monday after the last lecture		