IONA COLLEGE

WINTERSESSION

FIN490 DL

To all students involved with FIN490: Option Pricing and Computer Applications

The following six explanations of course requirements are included:

1. a discussion of the current homepage
2. a schedule of the course required readings, assignments and meeting times
3. a set of required readings from on-line sources
4. REVIEW: Part One (Investopedia), Part Two (Demonstrate)
5. ACCESS: Getting Started – two papers
6. READ: Part One (CBOE – paper) & Part Two (Tutorials – proof) & Part Three (Tools – 4 documents)
7. USE: Part One (Merger) & Part Two (services)
8. a set of instructions concerning alternative on-line web page readings
9. directions concerning WIMBA
10. e-mail addresses
11. **Currently Available Homepage**

**Please use the FIN 490 Blackboard Course Container for course preparation.**

If necessary, in addition to being posted to the FIN 490 Blackboard container, instructions for accessing Blackboard may be sent upon request as an attachment to an email. On Blackboard, you will find the Course Syllabus, Course Outline, Class Lectures/Folders, a Practice Final Exam and a page with several addresses (and hot keys) to recommended sites.

**Warning**: The FIN 490 homepage is set up as if this is the normal in-class January intersession program, but the calendar is provided to facilitate this special “independent study” distance learning approach. As you use the Blackboard FIN 490 course container, additions and adjustments will be made to fit our current needs. But as Distance Learners, you may progress through the learning at your own pace, except for any required times scheduled to meet through some on-line mechanism (such as WIMBA).

1. **Schedule for the special web-based FIN 490 course:**

TWO WEEK DISTANCE LEARNING COURSE entirely on-line; optional meeting times may be announced either by Dr. Calluzzo or Dr. Manley as time allows and need arises. This is an **artificial calendar** meant only to provide guidance. **If you are a late admit to the course, please email both Dr. Manley and Dr. Calluzzo** to affirm your participation in the class, receipt of documents and access to Blackboard (BB) & web.

**Student course preparation using an artificial calendar for guidance:**

**Jan. 2nd**: Students read pre-class notes sent via email as attachment, as well as ***Course Outline*** and ***Preliminary Notes*** posted on-line in BB (Blackboard). If not done so already, **Email Dr. Manley to affirm your participation in the class, receipt of any documents and access to Blackboard & web.**

**Night 1: Jan. 2nd**, First Night: READ all documents under ***Preliminary Notes***, ***Options Basics***, and Lectures (ten). Begin with ***Lectures 1, 2, 3 & 4*** on BB (Blackboard), especially Lecture 3 & 4 on BB, having read lectures 1 & 2 prior. Begin, and possibly complete, the ***REVIEW*** section.

***REVIEW***: Visit the on-line web sites for ***Investopedia*** to follow instructions associated with each site. (See: ***Required Readings* below** SEE: ***A. REVIEW: Investopedia: Assignment One*** and ***Assignment Two: Options Basics***.

**Night 2: Jan. 3rd** - Visit MARKETWATCH to complete assignment ***ACCESS.***

(See: ***Required Readings: Access***). USE <http://www.marketwatch.com/> to visit the site. GETTING STARTED: on the site, click on INVESTING. Therein, although you may visit any sites you choose for your own learning, you will see “Getting Started” as a choice across the top bar; visit these SIX sites HOW TO BUY: ETFs, OPTIONS, FUTURES, HEDGE FUNDS, COMMODITIES, and CURRENCY. ALSO, on the INVESTING page, click on these four links: Options, Commodities, Currencies, and Futures.

For two of these sites, OPTIONS and FUTURES, follow to read the three links associated with 1) the complete story, 2) the regulator, CBOE or Commodity Futures Trading Commission, and 3) the industry association, Options Industry Council or National Futures Association (SEE: ***Required Readings: Access***).

After visiting all pages at both OPTIONS and FUTURES, write a two to three page paper on what you learned from those pages; follow this with a one to two page paper on what you learned from all of the other four sites visited.

The Glossary provided by MARKETWATCH is also a good source of explanations as an alternative to Investopedia. <http://www.marketwatch.com/getting-started>

**Night 3: Jan. 4th** - Lectures include instructions that must vary from year to year based on what is available from free sources; as such, you may receive emails from Dr. Calluzzo or Dr. Manley rather than postings to Blackboard for any lecture.

Spreadsheet Basics (either with email or ***Lecture 2*** on the homepage); Data Collection,

Input, Analysis and Project Requirements (either with email or ***Lecture 3***).

Begin and possibly complete ***READ: PART ONE & TWO: CBOE***; follow all instructions (SEE: **Required Readings**) Part One asks for you to become familiar with tabs available on the CBOE site; then write minimum two page description of what is available on this site from these various tabs. Part Two requires that each student complete the Tutorials and provide the necessary proof.

Any and all documents are to be sent to Dr. Manley AND Dr. Caluuzo.

**Night 4: Jan. 5th** – **Option Pricing Theory & Models:** Read ***Lecture 4 & 5 & 6*** on BB.

Web-based Searches (refer to data provided by Dr. Calluzzo); Data Collection & Report Generation (refer to Dr. Calluzzo’s instructions)

Continue with and complete ***READ: PART ONE AND PART TWO: CBOE, as well as begin Part Three: Tools***. (SEE: ***Required Readings: Read: CBOE***)

**Night 5: Jan. 8th** – POSSIBLE WIMBA experience: Meeting 7:30 pm (if required) - this assignment & date is flexible: Dr. Calluzzo will assess everyone’s capability of participating in this on-line visual learning tool and will schedule both the date and time for this opportunity accordingly.

READ ***Lectures 7 & 8*** on BB. Read instructions on Project and PowerPoint requirement.

Complete assignment ***READ: PART THREE: CBOE: TOOLS*** (SEE Required Readings). Provide Dr. Manley with proof of completion.

**Night 6: Jan. 9th** - Lectures: Futures, Forwards, Swaps

Read ***Lecture 9 & 10*** on BB. Read through each of the PowerPoint Slides on ***Exchange Rate Derivatives, Options on Futures, Hedging with Options on Futures,*** and ***Interest Rate Swaps*** in Lecture 8 on Blackboard.

**Night 7: Jan. 10th** – complete both sections of ***USE***; and demonstrate understanding of Option Pricing. [For ***USE***, see Required Reading; for demonstrate, follow these instructions.]

Practice and Demonstrate the calculation of an option price: determine the relevant rate from a recent risk free rate; consider the choices for an implied variance. Assume a strike price and the underlying price; then calculate the option price using a reasonable time period. Send this entire calculation with explanation to both Dr. Manley and Dr. Calluzzo.

To find a recent risk free rate, search for US Treasury rates on your preferred search engine. Usually one of the first hits will provide the USTreasury rates in a matrix for the current month and for various terms (lengths associated with maturity). Use the correct risk free given theory to calculate the rate to be used with the option price. The calculation and explanation should take at least one, if not two, page(s).

**Night 8: Jan. 11th** – POSSIBLE WIMBA alternative Meeting 7:30 pm (or as required and scheduled by Dr. Calluzzo)

- Project & Power Point Presentation Discussion

- Project: discussion towards completion of assignment

**For Discussions, Blackboard Discussion Boards may be used. With email, responses are sent either to one sender or forward to all depending upon the question.**

Completion of Preparations for Option Pricing Project: analysis

**Night 9: Jan. 12th** - Project completion Power Point Presentation discussion. Send any emails with questions.

The powerpoint presentation is due tomorrow night to be sent to both Dr. Calluzzo and Dr. Manley.

– Project, both written and powerpoint presentation, DUE.

FINAL EXAM: taken on-line.

(See: practice exam on homepage)

Project Power Point Presentation DUE; written Project DUE

**If possible, in-person on-campus meetings will be announced via email.**

1. **Required Readings On-Line [other than Blackboard lectures and folders]**

***This includes [see below] A. REVIEW (two assignments), B. ACCESS (one assignment), C. READ (six assignments), D. USE (two assignments), and E. Options on Equities (one assignment).***

## REVIEW: while reading Options Basics posted to blackboard

**Part One: Visit *Investopedia***

**Assignment One: Learn** the difference between trading stock and trading options by reading Options 101: <http://www.investopedia.com/articles/optioninvestor/03/073003.asp>

and learn an alternative view of option basics at<http://tradingmarkets.com/> - once here, click on EDUCATION. Five items will appear in pop-down, click on each in turn, but spend the most time reading TRADING LESSONS & VIDEOS. Write a summary paper of the differences you learned from these two sites and the choices they provided.

**Assignment Two: Review** ***Options Basics*** towards the top of OPTIONS 101 (the first site listed above in Assignment One) within the first paragraph is a link to Options BASICS. This will bring the reader to the first of 7 pages; read each in turn: **Introduction, What are…, Why use…, How Options work, Types, How to Read Quote, and Conclusion.**

Submit by email a brief summary of these on-line pages from Assignment One and Two of Review.

**Part Two: Express your Learning**

The following concepts should be **learned** from the various readings from Lectures, Folders and on-line Readings when completed. You may need to register with the CBOE to have access to their free services and tools; but no fee is required.

**Write in a Word document a brief explanation of each of these concepts.**

1. BASIC NOTATION AND TERMINOLOGY (Dictionary is available on <http://www.cboe.com/learncenter/rctools.aspx> site under Education Tools),
2. PRINCIPLES OF CALL OPTION PRICING (Effect of Time-to-Expiration, Effect of Exercise Price, American Call versus European Call, Effect of American Calls on Dividend-Paying Stock, Effect of Interest Rates);
3. PRINCIPLES OF PUT OPTION PRICING (Minimum Value, Maximum Value, Value at Expiration, Effect of Time, Effect of Exercise Price);
4. PUT-CALL PARITY. These are found within a Lecture in Blackboard and at sites on-line or from the CBOE [<http://www.cboe.com/> or <http://www.cboe.com/LearnCenter/Tutorials.aspx>]. Do not pay for anything at the CBOE site; use only the free tools and services.

## ACCESS

**Part ONE**: The first required reading assignment in this section is available from TradeKing <https://www.tradeking.com/education/options/basics-of-options> site. Nice summary of what you learned above.

**Part TWO**: Go to <http://www.marketwatch.com/>***,*** the CBS MarketWatch Homepage – this site includes numerous areas of interest to the average investor – peruse at your leisure – pay for nothing – visit *Options* (as asked above), but now read specific pages to provide a summary description of what you learned; there are four links: *Options Screener, Expirations, Options Center – the fourth choice, Getting Started, you have already read and written about.*

**Write a two-part report on what was learned from the *Part One and Part Two.***

## C. READ <http://www.cboe.com/learncenter/options-trading-assessment.aspx>

Visit [www.CBOE.com/](http://www.CBOE.com/); each of the following are one of the choices in the bar towards the top of the screen; read them at you leisure – write a brief review of what you learned from ylur perusal of these pages, if all of these remain available.  
 Click on ABOUT - read any and all of the pop up entries that interest you.  
 Click on PRODUCTS - get to know this list and what each product is  
 Click on QUOTES - visit each in turn to see a quote so you can recognize and use quotes in the course and life  
 Click on TOOLS - get to know what is there, especially Virtual Trade, VIX Term Structure Data, Trade Builder, Volatility Finder, Volatility Optimizer, and Options Calculator.  You will be using several later on in the course (and in life).  
 Click on TRADING RESOURCES - visit Symbol Directory, which you may find

**PART ONE: You are invited by CBOE to set up an account to read several lectures, to play the game and to take the Quiz.**

Please do all three (if they are still free) Read the lessons on Option Basics, Take the Quiz and play the Game – screen capture your results in each of the three exercises to send to me.

CBOE “Log-in to Track Your Score! Please log into your existing MyCBOE account using the link below. If you do not already have a myCBOE account, please click on Register in order to sign-up for a **free** myCBOE account.”

Do not pay any fee - Let me know if you can not proceed without paying a fee.

**Write a minimum two-page report on what was learned from these pages.**

**PART TWO: CBOE: OPTIONS**Click on EDUCATION Tab, then on VIRTUAL TRADING TOOLS (on pop-up list). The Option Institute Page will open, and a list of three tutorials will appear: virtual trading tool, Paper Trade, and Paper Money – all three are free to use.You are to complete ALL the readings listed in ALL three levels provided FREE. These may be done at your leisure, come back as often as you need. **WITHIN THESE THREE LEVELS at the end of each, screen capture some aspect of your use of the site to send to me with an explanation of what you learned from using this option tool.**

**PART THREE: CBOE:**After completing the TUTORIALS as indicated above, visit CBOE.com to click on

EDUCATION to choose the OPTION QUEST ONLINE GAME. Play the FREE game; **provide the results**. You may play the game at the lowest level of difficulty or any level you choose. Capture your “results screen” and email a copy to [jmanley@iona.edu](mailto:jmanley@iona.edu).   
Part FOUR: CBOE

After playing the Game, visit use the Education Tools page; while there, use the Option Calculator with data from a current option **– provide the date and source of the option quote data and provide a screen capture of the results.**

Then, read the pages concerning the Volatility Finder and Trade Builder, also found within TOOLS. After reading these pages, **submit a written explanation of what these two tools do for an option investor.**

Visit Market Commentary; read the posted (most recent) article – it will be the one viewed (appears) right on the screen when the site is opened. Notice that an Article Archive is available if you wish to read more. **Write a summary paragraph of the most recent article.**Place all into a word document to send to me at [jmanley@iona.edu](mailto:jmanley@iona.edu).

**The following is provided as guidance for the Lessons the CBOE provides once you have set up your account. THIS does change, but reflects a recent visit to the site; it should still be a copy of what is on-line. The CBOE Options Institute offers three categories of tutorials found under *EDUCATION: ON-LINE TUTORIALS*:** [**Options Basics**](http://www.cboe.com/LearnCenter/Tutorials.aspx#basics)**,** [**People and Electronics**](http://www.cboe.com/LearnCenter/Tutorials.aspx#trade)**, &** [**Advanced Strategies**](http://www.cboe.com/LearnCenter/Tutorials.aspx#advanced)**.**

Within each category, you can select one of the tutorials. Tutorials can last anywhere from 10 to 30 minutes. To ensure you've understood the material, each tutorial ends with a short, multiple-choice quiz. If you don't understand all of the terminology, you can easily access the Options Dictionary while taking the tutorial. To take a tutorial, click a tutorial topic from one of the three categories. REMEMBER to block-copy-past Q&A.

**Options Basics**

1. [Options Overview](http://www.cboe.com/LearnCenter/cboeeducation/Course_01_01/mod_01_01.aspx)   
   Learn the fundamentals of listed options.  
   Duration: Approximately 20 minutes
2. [Introduction to Options Strategies](http://www.cboe.com/LearnCenter/cboeeducation/Course_01_02/mod_02_01.aspx)   
   Learn the basics of Calls and Puts.  
   Duration: Approximately 20 minutes
3. [Expiration, Exercise and Assignment](http://www.cboe.com/LearnCenter/cboeeducation/Course_01_03/mod_03_01.aspx)   
   Learn how to manage options positions.  
   Duration: Approximately 15 minutes
4. [Options Pricing 1](http://www.cboe.com/LearnCenter/cboeeducation/Course_01_04/mod_04_01.aspx)  
   Learn about options pricing and the fundamentals of determining the option price. Duration: Approximately 25 minutes
5. [Options Industry Today](http://www.cboe.com/LearnCenter/cboeeducation/Course_01_05/mod_05_01.aspx)   
   Learn the role of CBOE, investors, and the OCC.  
   Duration: Approximately 15 minutes

**People and Electronics: How a Trade is Made**

1. [The Human Component](http://www.cboe.com/LearnCenter/cboeeducation/Course_02_01/mod_01_01.aspx)   
   Learn about CBOE, traders, and order types.  
   Duration: Approximately 15 minutes
2. [Market Controls](http://www.cboe.com/LearnCenter/cboeeducation/Course_02_03/mod_03_01.aspx)   
   Learn about fast markets and unusual trading situations.  
   Duration: Approximately 10 minutes

**Advanced Strategies**

1. [Selling Puts](http://www.cboe.com/LearnCenter/cboeeducation/Course_03_01/mod_01_01.aspx)   
   Learn how and why you sell puts.  
   Duration: Approximately 20 minutes
2. [Vertical Spreads](http://www.cboe.com/LearnCenter/cboeeducation/Course_03_02/mod_02_01.aspx)   
   Learn the basics and considerations for vertical spreads.  
   Duration: Approximately 25 minutes
3. [Options Pricing 2](http://www.cboe.com/LearnCenter/cboeeducation/Course_03_03/mod_03_01.aspx)  
   Learn about pricing components and changes.  
   Duration: Approximately 30 minutes
4. [Buying Stock with a Ratio Call Spread](http://www.cboe.com/LearnCenter/cboeeducation/Course_03_04/mod_04_01.aspx)  
   Learn the basics and details of buying stock with a ratio call spread.  
   Duration: Approximately 30 minutes

## USE

## AMEX, NYSE Euronext, and ICE

## Research and Explain the changes in ownership of the AMEX (American Stock Exchange), the New York Stock Exchange, the NYSE Euronext, NASDAQ, and ICE (InterContinental Exchange).

## Write a one-page description of the relationship between each of these mergers and the derivative markets (such as OPTIONS).

1. **Use the ICE, NYSE Euronext & American Stock Exchange web sites.**

Access information concerning options and futures (derivative) services.

**Provide a one to two page report relating the site with what you have learned** concerning options, and the services offered on each of the three sites; send to [jmanley@iona.edu](mailto:jmanley@iona.edu).

AMEX is at [**http://www.amex.com/**](http://www.amex.com/) and <https://www.nyse.com/markets/amex-options>

the NYSE Euronext AMEX site provides several inclusive options and futures pages that you may compare with what you have learned from Investopedia, MarketWatch, and the Lectures/Folders on BB. Write a brief statemnent concerning the history and relationship among the AMEX (American Stock Exchange), NYSE (New York Stock Exchange), and ICE (Intercontinental Exchange).

1. **References on The Web**

## A. TERMS: Alternatives to the MarketWatch resources may be found on line. For a good dictionary:

<http://www.investopedia.com/dictionary/> or <http://www.investopedia.com/free/>

B. **REQUEST: If you wish, s**ign on, ask for the FREE Options Trading Manuals offered at this site:

1. <http://www.stock-links.com/email/free_options_trading_manual/index.shtml>

**REMEMBER: if you choose to do this, you will now be on their mailing list! THERE IS NO FREE LUNCH!**

1. ***e-mail* Addresses**

All sturnets must use the IONA email addresses. Our addresses are:

Dr. Manley jmanley@iona.edu