



Carleton University
BUSI 3502 C

Principles of Investments
Winter 2015

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Office Hours: Monday 11:30 – 13:30 or by appointment

Section C: Monday 08:35 – 11:25 Classroom: SA 517

Prerequisites

BUSI 2505, with grades of C+ or higher. ECON 2009 and STAT 2606, with grades of C- or higher.

The School of Business enforces all prerequisites.

This Course is Prerequisite to

BUSI 4500, BUSI 4502, BUSI 4504, BUSI 4510 and BUSI 4511, with a grade of C- or higher.

Course Objectives

The focus of this course is on vocabulary, analysis techniques and theories useful in becoming a successful investor or portfolio/money manager. We will look at the different financial markets, with emphasis on North American markets. Major types of securities traded in each market will be examined: What are they? How are they similar? How do they differ? How are they valued? How and where are they traded? Why do they exist, and why are they traded? We will study the role of investment risk and return in security valuation and in portfolio diversification. Upon completion, students will gain an understanding of the process and analysis appropriate for participation in financial markets, including insight into how to appropriately allocate funds across different investment vehicles.

Required Text

Bodie, Kane, Marcus, Perrakis and Ryan, **Investments**, 7th Canadian Edition, McGraw-Hill Ryerson, 2011.

Interesting Supplementary Texts:

Malkiel, B., **A Random Walk Down Wall Street**, Norton.

Graham, B., **The Intelligent Investor**.

Graham, B., **Security Analysis**.

Globe & Mail – ROB, Financial Post, Wall Street Journal, Barrons, The Economist

Interesting Online Resources:

Once you register with Morningstar (free), you can subscribe to Morningstar Insight emails.

Canadian Investment Review (Electronic journal in Library)

Financial Analysts Journal (Electronic journal in Library)

NOTE: There is a required enrollment in Stock Trak for \$27.95 per team (no more than two people per team). Registration info below.

Grading

Three Problem Sets	6 + 6 + 3%
Stock Trak Trading Project	15%
Midterm Test	25% or 5%
Final Examination	45% or 65%

Problem Sets

There are three (3) problems sets, to be done individually. Problem sets are due (in hard copy) at the start of the classes shown in the course schedule. Should you arrive late, please hand-in during the first break period of the class. Problem set questions will be posted on cuLearn.

Problem sets will be graded: well done (3), acceptable (2), modest effort (1), or unacceptable (0). To provide leeway for periods during the semester when you cannot perform at your best, the set with the lowest grade will be weighted 3%, the higher two sets each will be weighted 6%.

Term Test

The date of the midterm test is shown on the class schedule. To give each of you a chance to raise your mark by studying hard to do very well on the final exam, the weight of the term test will be 5% and of the exam will be 65%, should your exam mark be higher than the test mark. Otherwise the weight of the term test will be 25% and of the exam will be 45%. Students who miss the term test can have the weight of the term test added to the weight of the final exam by presenting a doctor's note or other suitable documentation. In fairness to all students, no make-up term test will be administered.

Final Exam

The final examination will test your understanding of the concepts covered in the lectures and textbook. The final exam is for evaluation purposes, not instruction. It will not be returned to students.

The date and location of the final exam will be announced through the University's normal procedures for such matters. Be sure that you are available for the final exam. **Allowance will not be made for conflicting travel plans.**

NOTE: The final exam will be comprehensive, covering material from the entire course. Students who earn less than 40% on the final exam will receive an "F", regardless of their total mark in the course.

NOTE: Students who do not demonstrate a minimum level of in-term performance will not be allowed to defer the final exam. The requirement for satisfactory in-term performance is an overall average mark of 50% or better on the problems sets + midterm test. Students with unsatisfactory in-term performance who miss the final exam will be awarded FND for the course.

Trading Project – StockTrak:

Imagine that you have inherited \$1,000,000. In order to keep the money, your objective is to create a portfolio that is:

Appropriate for your age in terms of asset allocation;

Invested according to the required schedule below;

and

Worth more than \$1,000,000 by the end of the semester.

To better understand asset allocation, read page 179. To better understand valuation, read chapters 8.2 & 15, and *Security Analysis*.

You may:

Trade on North American exchanges only;

Trade on margin and short sell;

Venture into options and futures trading toward the end of the semester, if you are properly hedged (Read chapters 17, 18, 19).

Your grade will be based on two measures of performance (see grid below): total portfolio value, and Sharpe ratio, both calculated at the end of the semester. Read about the Sharpe ratio in the textbook and/or online. Total return is more likely to reflect luck than is the Sharpe ratio.

You may undertake this project alone, or you may team up with one other classmate – no more than **TWO** students per account. To register, please go to:

<http://www.stocktrak.com/public/members/registrationstudents.aspx?p=Carleton-BUSI3502-W15>

and follow the instructions, or go to the StockTrak home page, click on “Register” then “Students” and type “Carleton-BUSI3502-W15” as the class name. Make sure that both student names are listed fully in the registration, or the missing name will not receive marks at the end of the semester.

During registration, as many websites do, StockTrak will ask for personal information. Some of it strikes me as unnecessary and best kept private (e.g. birthdate). Put down what you decide is appropriate.

There likely is a discount code attached to the new Bodie/Kane book, but you can leave the space blank if you have no code. Trading begins on January 16th and ends on March 27th. It is your responsibility to register and pay. Registration closes on January 30th. Without an account, you will receive a zero on this assignment.

Links to rules and instructions for trading should be easy to find once you have your account registered. Please read the trading restrictions on the website carefully. The marking matrix is below. Note that, as in real market conditions, **your performance is relative to the other participants**.

		Portfolio Value		
		Top Third	Mid Third	Low Third
Sharpe Ratio	Top Third	15	14	13
	Mid Third	14	13	12
	Low Third	13	12	11

The trading requirements below are related to investment topics that we will be covering. Think about why you are being asked to do each requirement. For example, why don't I say to invest at least \$400,000 in just one stock? Why do I say the 8 different stocks must be in at least 3 different sectors? Why not all in one sector? If you cannot figure out why you are being asked to do something, pull out the textbook or do a search online and read about it.

NOTE: If, at any time, your portfolio does not satisfy the parameters specified for that deadline, you will be penalized 0.5 marks per offense per trading period. For example, if you do not trade in 2 futures contracts when required, you will be docked 0.5 mark. Or, for example, if you do not have 70% of your portfolio invested long in equity in any given trading period, you will also be docked 0.5 marks, etc. The maximum number of marks that you

can be docked via trading penalties is limited to the grade that you would have received. If you satisfy all requirements, however, the minimum you can receive on this project is shown in the grid of marks for the assignment.

Trading Schedule:

Deadlines are the end of the trading day on the “By” date.

You are allowed to switch around securities. For example, you may buy 8 stocks, and a couple of days later, decide to sell two of them and replace them with three different stocks.

The day after any given deadline, you may start following the requirements for the next deadline.

By January 19: Dip your toes into investing, in a sensible way. Invest long (i.e. buy) at least 40% of your portfolio (\$400,000) in at least 8 different stocks (Share price \$3.00 or higher) in at least 3 different sectors as defined by the S&P500. The stocks chosen do not have to be within the S&P500; just use the sector / industry guides. You may invest more than this, but all transactions must be long equity purchases only.

Minimal relevant readings: 1.3, 1.6, 2.3

By January 26: People with a long time until retirement can afford to take on more risk in order to obtain greater expected return. What is your capital allocation?

Short at least 2 securities for amounts of at least \$10,000 each. Increase your long equity stake (excluding short exposure) to at least 70% of total available cash. Continue to maintain exposure to at least 8 different securities over at least 3 different sectors. Remember, managing your equity exposure may involve changing some of the stocks and / or the weights of the stocks in your long holdings. You may now include debt investments in non-equity holdings.

Minimal relevant readings: 3.2, 3.4, 3.5, 2.1, 2.2

By February 09: What is the point of shorting stocks? How is buying a put option like shorting a stock?

Keep at least 70% long (You may manipulate your holdings, but maintain a 70% long exposure – 8 different securities, 3 sectors minimum.). You can continue to hold your short positions (at least two) and/or you can start to cover with options. You do not need to maintain your shorts if you choose options. Options strategy(s) you may try are:

A minimum of \$5k (worth of the underlying) placed into a protective put and/or a covered call.

A protective put involves purchasing a put option contract on a stock (or index) that you presently own. It will protect against downside. If the stock (or index) falls, the put rises to offset it. If the stock rises, the put is worthless, but you've made money on the stock (or index). This mitigates downside risk.

A covered call is selling (writing) a call on a stock (or index) that you own. The call will generate a premium since you sold it, and the premium helps to defer losses should the stock price fall. If the stock price rises, you deliver for a profit.

Protective puts and covered calls are far cheaper than shorting, and can give you added leverage to reduce exposure far more efficiently. Note that if you choose to keep your shorts, you do not need to invest in options – but you must be invested in either or both.

Minimal relevant readings: 2.5, 17.2, 17.3

By February 23: What are the two kinds of traders that use options? Are your options liquid?

Keeping the previous 3 assignments in effect, including maintaining at least a 70% long equity stake, you must now enter into options trades, independent of your holdings. Choose any strategies you like – buying, writing, spreads, combos, etc., trading no less than \$5,000 worth of the underlying asset and no more than \$20,000 in each strategy (absolute values if you choose to write). This does not mean \$20,000 worth of options, rather \$20,000 worth of the underlying. If you wish to reduce your shorts, and/or use protective puts or covered calls, you may do that, as long as you maintain at least \$2,500 (of the underlying) invested in some form of insurance (independent of the options strategies above).

By March 09: Do you want to eat 40,000 lbs of pork bellies?

Keeping all previous entries in balance, and maintaining at least a 70% long equity stake, enter into at least 2 futures contracts on any commodity, but with a notional value not to exceed \$80,000 each (The value of the underlying amount, not the margin amount.).

Minimal relevant readings: 19.1, 19.2 and:

https://onlineint.optionsxpress.com/educational_center/futures/futures_level_2_4.aspx?nav=2&left_nav=1&item=futures2_4

By March 23: No (trading) rules this week.

Window-dressing time. Your trading assignment for this last installment is do whatever you see fit – a free-for-all. There are no required holdings. This as an opportunity to modify your portfolio to try and improve your standing

(if you are not doing well), or perhaps to liquidate so that you lock in a good ranking. There is no final written submitted portfolio.

In the real world, you would typically modify your holdings for your quarterly report so that it reflects what you want investors in your fund to see, not necessarily what you have done.

How to do better in the course. What you should expected of yourself

1. Attend lectures. Missing lectures could adversely affect your understanding of subsequent materials. Further, having regular times to be fully focused on the course will help your learning.
2. Read the relevant chapters of the text book before attending lectures. I won't be spending lots of time spoon feeding you terms and basic ideas.
3. Engage during lectures. Participate in class. Be prepared to ask and answer questions.
4. Attempt the assigned practice questions. Work through the Concept Check problems sprinkled through each chapter. Check out the Online Learning Centre offered by the textbook publisher for chapter summaries, practice quizzes, etc.
5. Enjoy the trading assignment, but keep in mind that it offers you a chance to apply course concepts in a "real" situation. A high Sharpe ratio pays off.
6. Read the business section of at least one major newspaper to keep up with the latest developments in the finance community.
7. Learn the course material as we go along, not just before the test and exam. Make a commitment to spend a minimum of 15 minutes every day on the course. Certainly, you'll spend much more time some days, but turning your mind to the course every day will pay off.

Best wishes, Dr. David Jackson

Course Schedule for BUSI 3502 Winter 2015

Week	Lecture	Text Chapter
Jan. 05	Introduction to financial markets. Professional ethics.	1
12	Financial instruments. Trading on Securities Markets	2 3
19	Return and Risk: Analyzing the Historical Record. Risk Aversion and Capital Allocation to Risky Assets.	4 5
26	Optimal Risky Portfolios Due: Problem Set 1	6
Feb. 02	The Capital Asset Pricing Model	7.1 – 7.4
09	Midterm Test (Covers chapters 1 – 7)	
16	Winter Break – NO LECTURE	
23	Index Models	8
Mar. 02	Bond Prices and Yields Term Structure Due: Problem Set 2	12 13
09	Duration	14 (p. 449 – 458)
16	Security Analysis Financial Statement Analysis	15 16
23	Options Due: Problem Set 3	17 18
30	Futures and Forwards Markets	19

While every attempt will be made to keep to the schedule above, circumstances may necessitate modifications during the semester.

IMPORTANT ADDITIONAL INFORMATION

RECOMMENDED CALCULATOR IN BUSI COURSE EXAMINATIONS

If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII. Only non-programmable calculators without text storage capabilities will be allowed in the test and exam for this course.

Printed translation dictionaries are allowed, as long as they do not contain handwritten notes. Electronic translation dictionaries are not allowed.

GROUP WORK

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks / assignments / projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

ACADEMIC ACCOMMODATION

You may need special arrangements to meet your academic obligations during the term because of disability, pregnancy or religious obligations. Please review the course outline promptly and write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist.

Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that your Instructor receives your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by March 6.

The Equity Services website provides the policies and detailed information on academic accommodation at: <http://carleton.ca/equity/accommodation>

RELIGIOUS OBSERVANCE

Students requesting academic accommodation on the basis of religious observance should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory academic event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student.

Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.

PREGNANCY

Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete *a letter of accommodation*. The student must then make an appointment to discuss her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.

ACADEMIC INTEGRITY – YOUR RESPONSIBILITY!

Using, summarizing or copying directly from another person's work, without identifying the name of the original thinker, is considered a form of cheating called "plagiarism". Plagiarism has serious consequences and can result in course / assignment failure and /or academic suspension.

When using, and/or summarizing the ideas and words of another, be it from a web site, a written text, lecture or discussion group, you must identify the source. Should you choose to use the exact words of another, you must acknowledge these words as such by enclosing them within quotation marks. However, be aware that it is not acceptable to copy large chunks from a source, even if you reference it correctly.

Examples of plagiarism and other instructional offences are identified in the Undergraduate Calendar (section 14, p. 59), parts of which read:

*Examples of **plagiarism** include*

- Submitting a take-home examination, essay, laboratory report, or another assignment, written, in whole or in part, by someone else.
- Using ideas or direct verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgements in academic assignments
- Using another's data or research findings
- Failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks.

Unauthorized Cooperation or Collaboration

- ... students shall not cooperate or collaborate in the completion of an academic assignment in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis. Failure to follow the instructor's direction regarding which assignments, or parts of assignments, should be completed by the individual alone will be considered violation of the standards of academic integrity.
- Answering with another students' **clicker** is also a violation that can lead to severe sanctions.

ASSISTANCE FOR STUDENTS

Student Academic Success Centre (SASC): www.carleton.ca/sasc

Writing Tutorial Services: <http://www1.carleton.ca/sasc/writing-tutorial-service/>

Peer Assisted Study Sessions (PASS): www.carleton.ca/sasc/peer-assisted-study-sessions

IMPORTANT INFORMATION:

- Students must always retain a hard copy of all work that is submitted.
 - All final grades are subject to the Dean's approval.
 - Please note that you will be able to link your CONNECT (MyCarleton) account to other non-CONNECT accounts and receive emails from us. However, for us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CONNECT address. Therefore, it would be easier to respond to your inquiries if you would send all email from your connect account. If you do not have or have yet to activate this account, you may wish to do so by visiting <https://portal.carleton.ca/>
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