



CARLETON UNIVERSITY  
SPROTT SCHOOL OF BUSINESS  
BUSI 3502 Sections A & B  
Fall 2018

## INVESTMENTS

**PROFESSOR:**

**William Clements, BA, MBA, CFA**

**COURSE TIMETABLE AND LOCATIONS:**

BUSI 3502	COURSE TIMETABLE	COURSE LECTURE ROOM
<b>3502 SECTION A</b>	Tuesdays, 2:35 PM – 5:25 PM	LA A720
<b>3502 SECTION B</b>	Fridays, 2:35 PM – 5:25 PM	SA 502

**CONTACT INFORMATION:**

**Office:**

**TBA**

**Telephone:**

613-301-4978

**E-mail:**

[William.clements@carleton.ca](mailto:William.clements@carleton.ca)

**Undergraduate Calendar Description:**

Procedures and methods of investment analysis. Stock and bond markets. Government regulation of securities markets. Valuation of common stocks and fixed income securities. Options, warrants, convertibles and commodities.

**Prerequisites:**

**BUSI 2505** with a grade of C+ or higher, **STAT 2606** and **ECON 2009** with a grade of C- or higher in each.

**This course is a prerequisite to:**

1. BUSI 4500 (with a grade of C- or higher)
2. BUSI 4502 (with a grade of C- or higher)
3. BUSI 4510 (with a grade of C- or higher)
4. BUSI 4511 (with a grade of C- or higher)

The School of Business enforces all prerequisites.

**Course Description**

The objective of this course is to provide students with the tools necessary to become successful investors or portfolio/money managers. A rigorous quantitative and qualitative analysis of the money and capital markets is offered, with the primary focus on the North American markets. There is a detailed examination of how and where securities are traded and how they are valued, providing insight in to how investors appropriately allocate funds across different investment vehicles. This course focuses primarily on an examination of the equity markets in North America. A detailed examination of the trading process and the function of securities markets are presented.

This is followed by exposure to the concepts of risk and return, specifically analyzing the role played in security valuation and in portfolio diversification

**Required Text:**

Bodie et al., Investments, 8<sup>th</sup> Canadian Edition, McGraw-Hill, Ryerson, 2015.

**Suggested Texts/Readings:**

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

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

Graham, B., **Security Analysis**

Newspapers/Magazines: **Globe and Mail – ROB, Financial Post, Wall Street Journal, Barrons, The Economist**

Problem sets will be placed on CuLearn on a regular basis. It is expected that all students complete the sets to be adequately prepared.

**Note:** There is a required enrolment in Stocktrak for \$29.95USD per team (no more than two students per team). Registration info is shown below.

**Grading:**

- Mid-term Exam 30%
- In-class quizzes 10% (4 in total, dates below)
- Trading Project (see below) 15%
- Final Examination (Date TBD) 45%
- Total 100%
- Bloomberg Market Concepts (BONUS, see below) 5%

<b><u>BUSI 3502</u></b>	<b><u>3502 SECTION A</u></b>	<b><u>3502 SECTION B</u></b>
Quiz #1	Tuesday, 25 September	Friday, 21 September
Quiz #2	Tuesday, 9 October	Friday, 5 October
Mid-term Exam 30%	Tuesday, 30 October 2018	Friday, 19 October
Bloomberg	Tuesday, 13 November 2018	Friday, 9 November
Quiz #3	Tuesday, 20 November	Friday, 16 November
Quiz #4	Tuesday, 4 December	Friday, 30 November

For quizzes, your best 3 scores count.

Quizzes will commence at the start of class on the date listed, and will be approximately 20-30 minutes in length. There are no make-ups for quizzes.

**Deferred Final Examinations**

Students unable to write a final examination because of illness or other circumstances beyond their control may apply within 3 days of the final examination to the Registrar’s Office (RO) to request to write a deferred examination. Permission may be granted by the RO, when the absence is supported by a medical certificate or other document.

However, deferred examinations are not granted to students who make travel plans that conflict with the examination period.

### **Missing the Mid-term**

Students unable to write the mid-term because of serious illness/emergency or other circumstances beyond their control may apply directly to the professor to discuss possible alternatives. This request must include relevant supporting medical documentation or other documents, and must be electronically submitted to me no later than three days after the missed midterm (i.e., Friday, Nov. 2<sup>nd</sup>). Approval is at the discretion of the professor. Please note that if the reason is due to a medical emergency, the documentation must clearly state that you were unable to come to school on the day because of that emergency. It is not necessary to provide the specifics of the emergency.

### **Course Outline**

<b><u>Topic</u></b>	<b><u>Chapter of the Required Text</u></b>
Investment Environment	<b>1</b>
Financial Markets and Instruments <ul style="list-style-type: none"> <li>• Money Market</li> <li>• Fixed Income</li> <li>• Equities</li> <li>• Derivatives</li> </ul>	<b>2</b>
Trading and Securities markets <ul style="list-style-type: none"> <li>• Issuing Securities</li> <li>• Trading and Market Orders</li> <li>• Regulations</li> </ul>	<b>3</b>
Return and Risk <ul style="list-style-type: none"> <li>• Utility Theory, Risk Aversion, and Portfolio Mathematics</li> <li>• Hedging and Insurance</li> <li>• Probability Theory</li> </ul> Capital Allocation to Risky Assets	<b>4, 5</b>
Risky Portfolios <ul style="list-style-type: none"> <li>• Risky Portfolios and the Risk-Free Asset</li> <li>• Efficient Allocation</li> <li>• Excel</li> </ul>	<b>6</b>
Capital Asset Pricing Model (CAPM)	<b>7</b>
Index Models & APT	<b>8</b>
Market Efficiency <ul style="list-style-type: none"> <li>• Technical/Fundamental analysis</li> </ul> Behavioural Finance	<b>9, 10</b>
Bonds <ul style="list-style-type: none"> <li>• Prices and Yields</li> <li>• Term Structure</li> <li>• Duration/convexity, portfolios</li> </ul>	<b>12, 13, 14</b>
Derivative Assets (time permitting)	<b>17, 18, 19</b>

<ul style="list-style-type: none"> <li>• Futures</li> <li>• Options</li> <li>• Valuation</li> </ul>	
Portfolio Optimization Techniques/Active Management (time permitting)	<b>20</b>

### **Bloomberg Market Concepts**

To be eligible for the 5% bonus you must complete all four modules, and achieve at least a 70% on each of the modules, by Friday, 30 November 2018.

For verification purposes, note that Bloomberg will be emailing me your grades on 30 November 2018. To sign up (it's free), please read the BMC instruction document on CuLearn. Our class-assigned group code is HNBUSI3502.

### **Trading Project -- StockTrak**

Suppose you inherited \$500,000. In order to keep the money, you must create a portfolio that is appropriate for your age in terms of asset allocation (local and international equities, cash, etc.), is invested according to the required schedule below (temporary cash is ok if opportunities are being explored), and is worth more than \$500,000 by the end of the semester. You can trade on the North American exchanges only, you can trade on margin and you can short sell, you can venture into options and futures trading toward the end of the semester if you are properly hedged (although we will not be covering options or futures until possibly the end of the semester – read chapters 18, 19, 20 if interested). As well, please read chapters 10, 15 & 16, and Security Analysis to get a better understanding of valuations. Your grade will be based on your total portfolio return and Sharpe ratio calculated at the end of the semester (see grid below). To fully understand the Sharpe Ratio, please read chapter 21. You can attempt this project alone, or you can team up with one other classmate – no more than TWO students per account, no exceptions.

To register, please go to

<http://stocktrak.com:80/members/registerstudent?className=BUSI3502W17> and follow the instructions. You will need to ensure your (or both) student name(s) is (are) listed fully in the registration, or the missing name will not receive marks at the end of the semester. Make sure that BUSI3502Fall2018 is listed in the class name. I believe there is a discount code attached to the new Bodie/Kane book. The rules and instructions for trading are located on the right hand margin of that page, and on the pull down menus at the top.

### **Important notes and dates:**

<b>BUSI 3502</b>	<b>3502 SECTION A</b>	<b>3502 SECTION B</b>
Trading Opens	Tuesday, 11 September	Friday, 7 September
Trading Begins	Monday, 24 September	Monday, 17 September
Trading Ends	Tuesday, 11 December	Friday, 7 December

- 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.

	Top Value Third	2nd Value Third	3rd Value Third
Top Sharpe Ratio Third	<b>15</b>	<b>13.5</b>	<b>12</b>
2nd Sharpe Third	<b>13.5</b>	<b>12</b>	<b>10.5</b>
3rd Sharpe Third	<b>12</b>	<b>10.5</b>	<b>9</b>

Trading Schedule (by market close each day):

- By 21<sup>st</sup> Sept. (Section B) / 25<sup>th</sup> Sept. (Section A) Invest (long only) at least 40% of your portfolio (\$200,000) in at least 8 different securities (\$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 can certainly invest more than this, and across different countries, but all transactions must be long equity purchases only.
- By 5<sup>th</sup> Oct. (Section B) / 9<sup>th</sup> Oct. (Section A): While continuing to manage your long investments, increase equity stake to at least 70% of your total available cash. Continue to maintain exposure to at least 8 different securities over at least 3 different sectors. As well, short at least 2 securities for amounts of at least \$10,000 each.
- By 19<sup>th</sup> Oct. (Section B) / 30<sup>th</sup> Oct. (Section A): keeping at least 70% long (you can manipulate your holdings, but maintain a 70% long exposure - 8 diff securities, 3 sectors min.), you can continue to hold your two (at least) short positions and/or you can now start to cover with options. You do not need to maintain your shorts if you choose. The options strategy(s) you can attempt are as follows;
  - A minimum of \$5k, and no more than the total worth of the underlying placed into a protective put and/or a covered call. A protective put is purchasing a put option contract on a stock (or index) that you presently own. It will protect against downside. If the stock (or index) rises, the put is worthless, but you've made money on the stock (or index). This will mitigate much risk.
  - A covered call is selling (writing) a call on a stock (or index) that you own. It will generate a premium since you sold it, and it can help 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 much 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.
- By 9<sup>th</sup> Nov. (Section B) / 13<sup>th</sup> Nov. (Section A): Keeping the previous 3 assignments in tune, 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 and no

more than \$20,000 worth of the underlying asset in each strategy (absolute values if you choose to write). This does not mean \$20,000 worth of options as in the covered call or protective put cases above, rather \$20,000 worth of the underlying. If you wish to trim down your shorts, protective puts or covered calls, you can as well, as long as you maintain at least \$2,500 invested in some form of insurance (short, covered call, protective put).

- By 23<sup>rd</sup> Nov. (Section B) / 27<sup>th</sup> Nov. (Section A): Again, keeping all previous entries in check, maintaining at least a 70% long equity stake, enter into at least 2 futures contract transactions on any commodity only, with a notional value not to exceed \$50,000 each (i.e., not the margin amount, the underlying amount).
- By 30<sup>th</sup> Nov. (Section B) / 04<sup>th</sup> Dec. (Section A): Window-dressing time now. Your trading assignment for this last installment is to package your portfolio however you see fit -- a free-for-all. In the real world, you would typically modify your holdings for your quarterly report so that it reflects what you want people to see, not necessarily what you have done. Since there is no final written submitted portfolio, use this as an opportunity to modify or liquidate so that you can solidify your ranking...

NOTE: If, at any time, your portfolio does not satisfy these parameters, you will be penalized 1 mark per offense per trading period. In other words, if you do not trade in 2 futures contracts by 23<sup>rd</sup> Nov. (Section B) / 27<sup>th</sup> Nov. (Section A), you will be docked 1 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 1 mark, etc. The maximum amount of marks that you can be docked via trading penalties is limited to the grade that you would have received. In other words, it is possible to get 0 on this project, but not less than that. However, if you satisfy all requirements, the minimum you can receive on this project is a 9 out of 15 regardless of your performance.

### **CuLearn:**

All course information, handouts, grades, announcements will be placed on CuLearn. It is your responsibility to ensure that you have access. In order to log on to the course page, you need to firstly be formally registered in 3502. Please check it regularly.

### **ADDITIONAL INFORMATION**

#### **Course Sharing Websites**

Materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

#### **Required 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

### **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.

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100    B+ = 77-79    C+ = 67-69    D+ = 57-59

A = 85-89    B = 73-76    C = 63-66    D = 53-56

A - = 80-84    B - = 70-72    C - = 60-62    D - = 50-52

F = Below 50

WDN = Withdrawn from the course

DEF = Deferred

### **Academic Regulations, Accommodations, Etc.**

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

### **Requests for Academic Accommodation**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

#### **Pregnancy obligation**

Please contact your instructor 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. For more details, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

#### **Religious obligation**

Please contact your instructor 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. For more details, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

### **Academic Accommodations for Students with Disabilities**

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC)

at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. [carleton.ca/pmc](http://carleton.ca/pmc)

### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support)

### **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor 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. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: [students.carleton.ca/course-outline](http://students.carleton.ca/course-outline)

### **For Religious Obligations:**

Students requesting academic accommodation on the basis of religious obligation 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 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 and instructors can confirm accommodation eligibility of a religious event or practice by referring to the Equity Services website (<http://carleton.ca/equity/accommodation/religious-observances/>) for a list of holy days and Carleton's Academic Accommodation policies. If there are any questions on the part of the student or instructor, they can be directed to an Equity Services Advisor in the Equity Services Department for assistance.

### **For 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**

Violations of academic integrity are a serious academic offence. Violations of academic integrity – presenting another’s ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the degree and will not be tolerated. Penalties may include; a grade of Failure in the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from fulltime studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: <https://carleton.ca/registrar/academic-integrity/>.

### **Sprott Student Services**

The Sprott student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you’re having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring, concentrations, and will ensure that you get connected with the resources you need to succeed! <http://sprott.carleton.ca/students/undergraduate/support-services/>  
Be in the know with what’s happening at Sprott: Follow @SprottStudents and find us on Facebook SprottStudents Sprott.

### **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.
- 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 CARLETON address. Therefore, it would be easier to respond to your inquiries if you would send all email from your Carleton account. If you do not have or have yet to activate this account, you may wish to do so by visiting <http://carleton.ca/ccs/students/>