BUSI 4502 A & B
*Portfolio Management*
Winter 2016

**PROFESSOR:** Bill Lawson  
**TELEPHONE:** 613-520-2600 ext.8767  
**OFFICE:** 1726 Dunton Tower  
**OFFICE HOURS:** Tuesday 3:30 to 5:00; 9:00 to 9:30 or by appointment  
**E-Mail:** bill.lawson@carleton.ca  

**CLASS TIMES:**  
*Section A*  
Tuesday 1135 – 1425  
*Section B*  
Tuesday 1805 - 2055

**UNDERGRADUATE CALENDAR DESCRIPTION:**  
Analysis of investment requirements for individuals and institutional investors: liquidity, risk and return; portfolio design, construction, management and control; performance measurement; capital market theory.  
Also listed as ECON 4502.

**PREREQUISITE:**  
BUSI 3500, BUSI 3502 and BUSI 3512 with a grade of C- or higher in each and STAT 2607 with a grade of C- or higher.

*The School of Business enforces all prerequisites*

**COURSE OBJECTIVES:**  
The course has three objectives.  
The first objective is to examine the process of portfolio construction and decision making.  
This objective is to be accomplished by examining the portfolio selection process from the perspectives of both institutions and individuals by means of lectures and assigned readings.  
The second objective is to help students become aware of recent advances in investment management which are essential for the efficient management of investments and portfolios.  
This is accomplished by exposing students to advances in investment management by assigned journal articles on relevant topics; and through a short group paper on an investment topic that may be of direct interest to a portfolio manager or an analyst in an investment house.  
The latter provides an opportunity to pursue a particular topic of interest.  
The third objective is to provide students an opportunity to invest in a portfolio of securities in a situation which is as close to reality as possible.  
This is accomplished by participation in the
“Investment Challenge” which enables students to apply the concepts and investments strategies learned in the classroom to a practical setting.

**REQUIRED TEXT:**


**SUPPLEMENTAL TEXTS AND BOOKS:**


Various readings as assigned. These are available on-line (library) or on cuLearn. Students will be assigned individual articles for presentation in the subsequent class.

**REFERENCE JOURNALS (PARTIAL LIST):**

- Financial Analyst Journal HG 4501 A72
- Journal of Portfolio Management HG 4501 J68
- Financial Management HG 4001 F55
- Journal of International Money and Finance HG 3879 J68
- Journal of Finance HG 1 J6
- Journal of Financial and Quantitative Analysis HG 1 J65
- Journal of Financial Economics HG 1 J67
- The Review of Financial Studies HG 1 R55
- Applied Financial Economics HG 11 A66
- Journal of Futures Markets HG 6001 J68
- Journal of Applied Corporate Finance HG 4001 J68
- Review of Financial Studies HG 1 R55
- Journal of Asset Management electronic version available on Business Source Complete

**EVALUATION:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Marks</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Team Research Report</td>
<td>15</td>
<td>Apr. 5</td>
</tr>
<tr>
<td>Team Trading System Study</td>
<td>5</td>
<td>Mar. 15</td>
</tr>
<tr>
<td>Individual article reviews</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Investment Challenge:</td>
<td>20</td>
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</tbody>
</table>

**Tentative Break Down**

- Portfolio (D) and Investment Plans & Objectives Report (4)          Feb. 9
- Industry (I) and Companies Report (4)                                Mar. 8
- Final Report (5)                                                    Apr. 5
- Results (7)
The application for a deferral must be made in writing to the Registrar's Office no later than five working days after the original final examination or the due date of the take-home examination.

*NOTE: A PASSING GRADE CANNOT BE OBTAINED IN THIS COURSE UNLESS A PASSING GRADE IS ATTAINED ON THE FINAL EXAM AND ALL PROJECTS, ASSIGNMENTS AND ARTICLE REVIEWS ARE COMPLETED.

EVALUATION:
All reports will be graded on the depth and breadth of the write-up. Also note that if you miss the deadlines for any of the reports, the penalty will be an automatic 1 mark per overdue day.

TEAM (3 MEMBERS) RESEARCH REPORT

Each team is expected to write a report (maximum 16 pages double spaced with a maximum of 5 graphs or tables) on an investment topic that may be of potential use to a portfolio manager or a financial analyst in an investment house. It is assumed that this topic would go beyond the existing topics typically covered in detail in a typical investment textbook (minimum of 5 reference articles). The source of the topics can be found by researching academic journals including the Journal of Portfolio Management, Financial Management, Journal of Finance, Journal of Financial Economics, Journal of Futures, Euromoney, etc. The topics can range from new hedging techniques, financial innovations, investment techniques for superior performance, an arbitrage situation arising from a contested takeover offer, a new security, an information system for supporting investment decisions, etc. The team is expected to submit a one-page proposal for approval and comments (due Feb. 9). These reports will be presented in the last two classes. One-third of the grade will be based on the presentation. Final Report due April 5.

INDIVIDUAL ARTICLE REVIEWS:
Starting from the second session, each student will prepare a one or two page (typed) review of each of the designated articles assigned for reading for a particular session; these reviews are to be prepared in advance of each class. They will be collected each week and graded, at random on a 0-2-4-5 basis. A 5 is assigned for an acceptable review; a 2 or 4 is assigned for various degrees of less than acceptable reviews; a zero for no review. It is anticipated that the model grade will be a 5. Students will be prepared to present and discuss these reviews in class (criticism/extension/so what).

TEAM TRADING SYSTEM STUDY:
Design, develop and test a trading system using 3 years of daily data. Details to be discussed in class. Provide a literature review with respect to trading systems/filter rules. (approx.8 pages double spaced plus 4 or 5 exhibits). Your write-up should include: purpose of study, background theory re market efficiency, literature review, explain how a filter works and how optimal filters are selected, explain how stocks were selected randomly, sample filter results for individual stocks-development period, summary filter results-test period, commentary and conclusions. Be prepared to present your results in class (due Mar.15).

INVESTMENT CHALLENGE – TEAM PROJECT: (January 25 – Apr. 1)
The investment challenge allows the participants to invest $1,000,000 in simulated money. The details of the game and the participation rules are available to students from the company which manages the investment challenge game. See BUSI 4502 Stock Trak Registration. A fixed fee is charged by the company which runs the challenge. You will form teams of 3 for this game. Your team must open an account following the instruction on CULearn for the course. You must open a Standard Account (cost $27.95 USD). For this course, you are asked to invest the allocated amount over this period as described below (one hundred trade limit).

Allocate the initial investment in two portfolios: D and I; D for diversified ($500,000) and I for Industry ($450,000).

**PORTFOLIO MANAGEMENT FOR D:**

For portfolio D: You must have, at any point in time, at least 10 securities. You must start this portfolio on January 25 and start preparing a report on how and why you selected these securities. This report will be no more than 10 double spaced pages and a maximum of four one-page exhibits and must outline the overall outlook and your expectations for the portfolio and the securities that you have selected (due Feb. 9). These securities must come from at least three industry sectors. If you have already decided on a strategy (i.e. buy and hold versus active trading, floor and ceiling amounts you will invest in each, etc.), and have thoughts on your expectations about performance (how will you measure it?), I expect to find it in this report. You must have invested, at least, $200,000 in this portfolio by Feb. 1.. Under no circumstances can your cash balance in the account fall below $50,000 until you invest in portfolio I (Show the distribution of the stocks in your portfolio across the 10 basic industry categories. Have you constructed a growth, value, mixed or other portfolio; how do you classify each of your selected stocks? Explain?)

**PORTFOLIO MANAGEMENT FOR I:**

For portfolio I: You must pick your favorite industry and then choose at least 4 companies from that industry. After Feb. 1 and by February 15, you must invest, at least, $400,000 in this portfolio. Your report (no more than 15 double spaced pages and a maximum of four one-page exhibits)(due March 8) will outline the outlook and reasons for choosing the industry and the individual stocks. Your final report will be compared with what is outlined in this report. By now you could invest up to $995,000. Provide updates with respect to *** above and portfolio D.

**NOTE:** You are to engage in at least one margin trade (when fully invested).

**FINAL REPORT:** (10 pages maximum plus 5 or 6 exhibits)

Your final report is due by April 5 and will contain the trading history and the corresponding reasons for the trades, the final value of the portfolio and a comparison with the intended strategies versus actual strategies, and any other relevant details. The final value of the portfolio will be as of Apr. 1 – the last day of the investment challenge/project. Also, determine the E(r) and β for your portfolio. **DO NOT LIQUIDATE THE PORTFOLIO ON THE LAST DAY** (keep it intact and designed for the future).

**RESULTS – PORTFOLIO PERFORMANCE**

The marks (based on the Sharpe Ratio as well as the overall portfolio return) will be calculated on the quintile rankings of the groups using the following breakdown:
<table>
<thead>
<tr>
<th>Quintile</th>
<th>Score</th>
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<tbody>
<tr>
<td>1st</td>
<td>7/7</td>
</tr>
<tr>
<td>2nd</td>
<td>6/7</td>
</tr>
<tr>
<td>3rd</td>
<td>5/7</td>
</tr>
<tr>
<td>4th</td>
<td>4/7</td>
</tr>
<tr>
<td>5th</td>
<td>3/7</td>
</tr>
</tbody>
</table>

This is the lowest mark any group can receive.
## TENTATIVE COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 12</td>
<td>Introduction</td>
</tr>
<tr>
<td>Jan 19</td>
<td>Background Theory and Ethics</td>
</tr>
<tr>
<td>Jan 26</td>
<td>Empirical Evidence on Security Returns</td>
</tr>
<tr>
<td>Feb. 2</td>
<td>International Investing</td>
</tr>
<tr>
<td>Feb. 9</td>
<td>Market Efficiency</td>
</tr>
<tr>
<td>Feb. 16</td>
<td>Reading Week (Feb. 15-19)</td>
</tr>
<tr>
<td>Feb. 23</td>
<td>Portfolio Performance Evaluation</td>
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<tr>
<td>Mar. 1</td>
<td>Theory of Active Portfolio Management</td>
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<tr>
<td>Mar. 8</td>
<td>Fixed Income Portfolio Management</td>
</tr>
<tr>
<td>Mar. 15</td>
<td>Portfolio Management Policy</td>
</tr>
<tr>
<td>Mar. 22</td>
<td>Individual Investors &amp; Retirement Savings</td>
</tr>
<tr>
<td>Mar. 29</td>
<td>Presentation of Research Projects</td>
</tr>
<tr>
<td>Apr. 5</td>
<td>Presentation of Research Projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Final Portfolio Report and Team Research Report are due Apr 5.</td>
</tr>
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</table>
Finding Journal Articles
When you have the full reference for an article, go to the Library’s homepage www.library.carleton.ca and click on Catalogue. The Catalogue lists the journals we have by title. In the Title box key in the title of the JOURNAL. eg. Financial Analysts Journal – not the title of the article or the author’s name. When the journal is available online, you will be given a URL. Take it. Then click on the year given in your reference and scroll down to the appropriate page.
Following is the list of course readings. All journals can be found in the Catalogue. Many are e-journals available from Business Source Complete (BSC). Call numbers are provided for the few that are available in print only.(Follow:Carleton library-on line resources-journal articles and other data bases-business-Business Source Complete-BSC)
All required articles are available on CU Learn BUSI 4502 LIBRARY RESERVES - ARES

READING LIST
(3*) Gray and Vogel, “Analyzing Valuation Measures: A Performance Horse Race over the Past 40 Years”, The Journal of Portfolio Management, Fall 2012, p112-121 BSC


(33*) Alankar, DePalma and Myron Scholes, “An Introduction to Tail Risk Parity”, Alliance Bernstein, 2012


**ADDITIONAL INFORMATION**

**Course Sharing Websites**
Student or professor 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
</tr>
<tr>
<td>A</td>
<td>85-89</td>
</tr>
<tr>
<td>A-</td>
<td>80-84</td>
</tr>
<tr>
<td>B+</td>
<td>77-79</td>
</tr>
<tr>
<td>B</td>
<td>73-76</td>
</tr>
<tr>
<td>B-</td>
<td>70-72</td>
</tr>
<tr>
<td>C+</td>
<td>67-69</td>
</tr>
<tr>
<td>C</td>
<td>63-66</td>
</tr>
<tr>
<td>C-</td>
<td>60-62</td>
</tr>
<tr>
<td>D+</td>
<td>57-59</td>
</tr>
<tr>
<td>D</td>
<td>53-56</td>
</tr>
<tr>
<td>D-</td>
<td>50-52</td>
</tr>
<tr>
<td>F</td>
<td>Below 50</td>
</tr>
<tr>
<td>WDN</td>
<td>Withdrawn from the course</td>
</tr>
<tr>
<td>ABS</td>
<td>Student absent from final exam</td>
</tr>
<tr>
<td>DEF</td>
<td>Deferred (See above)</td>
</tr>
<tr>
<td>FND</td>
<td>(Failed, no Deferred) = Student could not pass the course even with 100% on final exam</td>
</tr>
</tbody>
</table>

**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/](http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/)

**Requests for Academic Accommodations**
*For Students with Disabilities:*
The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and 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 me to ensure accommodation arrangements are made. The deadlines for
contacting the Paul Menton Centre regarding accommodation for final exams for the December 2015 exam period is November 6, 2015 and for the April 2016 exam period is March 6, 2016.

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 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.

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 full-time 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: http://www2.carleton.ca/sasc/advisingcentre/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/