



Carleton
UNIVERSITY

SPROTT
SCHOOL OF BUSINESS

BUSI 4502 B
Portfolio Management
Winter 2020

PROFESSOR: Bill Lawson PhD
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OFFICE: 1726 Dunton Tower
OFFICE HOURS: Wednesday 1:30 to 2:30; 5:30 to 6:30 or by appointment
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CLASS TIME: Wednesday 1435 - 1725

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.

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:

Investments, Bodie, Kane Marcus, Perrakis, Ryan, Seventh Canadian Edition, McGraw Hill Ryerson , 2011 (BK) or later edition.

SUPPLEMENTAL TEXTS AND BOOKS:

Reilly and Brown, Investment Analysis and Portfolio Management, 8th ed., Thomson/South Western, 2006.

Elton Edwin, J. and Martin J. Gruber, Modern Portfolio Theory and Investment Analysis, fifth edition, John Wiley and Sons, 1995.

James L. Farrell, Portfolio Management, 2nd ed., McGraw Hill, 1997

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:

	Marks	Due Date
Team Research Report	15	Apr. 1
Team Trading System Study	5	Mar. 11
Individual article reviews	10	
Investment Challenge:	20	
<u>Tentative Break Down</u>		
Portfolio (D) and Investment Plans & Objectives Report (5)		Feb. 5
Industry (I) and Companies Report (5)		Mar. 4
Final Report (5)		Apr. 1
Results (5)		
Final Examination	<u>50</u>	
Total	100*	

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. 5).** 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 1.**

INDIVIDUAL ARTICLE REVIEWS:

Starting from the second session, each student will prepare a 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 0-5 basis. A 5 is assigned for an acceptable review; a lower grade is assigned for less than acceptable reviews; a zero for no review. Students should be prepared to present and discuss these reviews in class (criticism/extension/so what). Each student is expected to make a minimum of 2 presentations.

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.11**).

INVESTMENT CHALLENGE – TEAM PROJECT: (January 24 –Mar. 27)

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. 5**). These securities must come from at least **six** 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 Jan. 29.. Under no circumstances can your cash balance in the account fall below \$500,000 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?}***. Provide (in an appendix) an initial stock analysis/valuation (SAV) report for your favorite* portfolio company (see template).

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 5**) 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. Update SAV above.

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 4 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 Mar.29 – the last day of the investment challenge/ project. Also, determine the $E(r)$ and β for your portfolio. Provide (in an appendix) the final SAV report for your favorite* company.

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:

1 st quintile	5/5	3 rd quintile	3/5
2 nd quintile	4/5	4 th quintile	2/5
		5 th quintile	1/5 – this is the lowest mark any group can receive

TENTATIVE COURSE SCHEDULE

<u>Date</u>		<u>References</u>
Jan 8	Introduction	BK: 2, 5
Jan 15	Background Theory and Ethics	BK: App. 5A (1a),(1b),(2*), (3*), (4*), (5*)
Jan 22	Empirical Evidence on Security Returns	BK: 10, 11 (6*), (7*), (8*), (9*)
Jan 29	International Investing	BK: 23 (10*), (11*), (12*), (13*)
Feb. 5	Market Efficiency	BK 9 (14*), (15*), (16*), (17*), (18*)
Feb. 12	Portfolio Performance Evaluation	BK: 20 ([19&20]*), (21*), (22*), (23*)
Feb.19	Reading Week (Feb. 17-21)	
Feb 26	Theory of Active Portfolio Management	BK: 21 (24*), (25*), (26*), (27*), (28*)
Mar. 4	Fixed Income Portfolio Management	BK: 14 (29*–{a}p.677-689; {b}p.689-703; {c}p.703-end)
Mar. 11	Alternative Investments	BK:22, App. 22A, 22B (30*), (31*), (32*), (33*), (34*)
Mar. 18	Portfolio Management Policy	(35*), (36), (37*), (38), (39*), (40*), (41)
Mar. 25	Presentation of Research Projects Individual Investors & Retirement Savings	
Apr. 1	Presentation of Research Projects Course Overview	LAST CLASS

Final Portfolio Report and Team Research Report are due Apr 2.

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

- (1a) Robert A. Nagy and Robert W. Obenberger, "Factors Influencing Individual Investor Behaviour", *Financial Analysts Journal*, V. 50 (4) July/Aug., 1994, pp. 63-68. **BSC**
- (1b) Brian O'Reilly, "Why Johnny Can't Invest", *Fortune*, Nov 9, 1998, Vol. 138 Issue 9, p173-176 **BSC**
- (2*) Hsu, Kalesnik, Kose, "What Is Quality", *Financial Analysts Journal*, 2019, V 75 (2), p44-61. **BSC**
- (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**
- (4*) Caccese, "Ethics and the Financial Analyst", *Financial Analysts Journal*, V. 53 (1) Jan/Feb 1997 p. 9 - 14 **BSC**
- (5*) Dobson, "Ethics in Finance II", *Financial Analysts Journal*, V.53(1) Jan/Feb 1997 pg15-25 **BSC**
- (6*) John D. Finnerty, "Financial Engineering in Corporate Finance: An Overview", *Financial Management*, Winter 1988, V. 17(4), p14-33 **BSC** (Finance Association- Tampa)
- (7*) Cerniglia, Fabozzi and Kolm, "Best Practices in Research for Quantitative Equity Strategies", *Journal of Portfolio Management*, Special Issue 2016, p 135-143 **BSC**
- (8*) Barry, Peavy, Rodriguez, "Performance Characteristics of Emerging Capital Markets", *Financial Analysts Journal*, Jan/Feb 1998. V. 54(1), p72-80 **BSC**
- (9*) Asness, Israelov, Liew, "International Diversification Works (Eventually)", *Financial Analysts Journal*, May/June 2011, Vol67(3), p25-38 **BSC**
- (10*) Baca, Garbe and Weiss, "The Rise of Sector Effects in Major Equity Markets", *Financial Analysts Journal*, Sept/Oct 2000 V. 56(5), p34-40 **BSC**

- (11*) Hunt and Hoisington, “Estimating the Stock/Bond Risk Premium”, *Journal of Portfolio Management*, Winter 2003 V. 29(2), p28-34 **BSC**
- (12*) Bernstein, “What Rate of Return Can You Reasonably Expect...”, *Financial Analysts Journal* Jan/Feb 2015, V. 71(1), p35-42 **BSC**
- (13*) Barry White, “What P/E Will the U.S. Stock Market Support?” *Financial Analysts Journal*, Nov./Dec. 2000 V.56(6), p30-38 **BSC**
- (14*) Haug and Hirschev, “The January Effect”, *Financial Analysts Journal*, Sept/Oct. 2006. p78-88 **BSC**
- (15*) Chen and Singal, “A December Effect with Tax-Gain Selling”, *Financial Analysts Journal* ,July/Aug. 2003, V. 59(4), p78-91 **BSC**
- (16*) Meir Statman, “Behavioral Finance Lessons for Asset Managers”, *Journal of Portfolio Management*, Summer 2018, p.135-147. **BSC**
- (17*) Robert C. Jones, “Making Better (Investment) Decisions”, *Journal of Portfolio Management*, Winter 2014, p128-143 **BSC**
- (18*) Jacobs B.I. and Levy K.N., “Disentangling Equity Return Regularities: New Insights and Investment Opportunities”, *Financial Analysts Journal*, May/June 1988 V.44(3) p.18-44. **BSC**
- (19*) Patricia Sellers, "Mr. Buffet on the Stock Market", *Fortune*, Nov. 22, 1999. Vol. 140, Issue 10, p212 (Follow: library – online resources – electronic journals – F – Fortune – connect to web resources – year).
- (20*) Buffet, “Warren Buffet on the Stock Market”, *Fortune*, Dec. 10, 2001. Vol. 144, Issue 12, p.80, Follow: see (19) above.
- (21*) Kok, Ribando, Sloan, “Facts about Formulaic Value Investing”, *Financial Analysts Journal*, 2017, V 73 (2), p81-99 **BSC**
- (22*) Baker, Bradley, Wurgler, “Benchmarks as Limits to Arbitrage: Understanding the Low-Volatility Anomaly”, *Financial Analysts Journal*, Jan/Feb 2011, Vol 67(1), p1-15 **BSC**
- (23*) Chan and Lakonishok, “Value and Growth Investing: Review and Update”, *Financial Analysts Journal*, Jan./Feb. 2004, V. 60(1) p71-86 **BSC**
- (24*) Edwards and Gaon, “Hedge Funds: What Do We Know”, *Journal of Applied Corporate Finance*, Fall 2003 V.15(4), p58-69. Follow-New York, Stern Stewart & Co., Wiley Interscience, Find Issues, All Issues, 2003, Vol 15(4),PDF(149K)
- (25*) Bauer and Dahlquist, “Market Timing and Roulette Wheels”, *Financial Analysts Journal*, Jan/Feb 2001, Vol 1, p28-40 **BSC**

- (26*) Bogle and Sullivan, “Markets in Crisis”, *Financial Analysts Journal*, Vol. 65 (1) ,Jan/Feb 2009, p. 17-24, **BSC**
- (27*) Reinganum, M.R., "The Significance of Market Capitalization in Portfolio Management OverTime", *Journal of Portfolio Management*, Summer, 1999, V. 25(4), p39-50.
- (28*) Arnot, Hsu, Moore, “Fundamental Indexation”, *Financial Analysts Journal*, Mar/Apr 2005, Vol 61(2), p83-99 **BSC**
- (29*) Reilly, F.K.and K.C. Brown, “Bond Portfolio Management Strategies”, Chapter 19 – Investment Analysis and Portfolio Management, 9th Ed., Dryden 2009.
- (30*) Visscher and Filbeck, “Dividend – Yield Strategies in the Canadian Stock Market”, *FinancialAnalysts Journal*, Jan./Feb. 2003, V. 59(1) p99-106 **BSC**
- (31*) Asness, “The Interaction of Value and Momentum Strategies”, *Financial Analysts Journal*,Mar/Apr 1997, V. 53(2) p29-36 **BSC**
- (32*) Asness, Friedman, Kuail, Liew, "Style Timing: Value versus Growth", *Journal of PortfolioManagement*, Spring 2000, V. 26(3), p50-60.
- (33*) Alankar, DePalma and Myron Scholes, “An Introduction to Tail Risk Parity”, Alliance Bernstein, 2012
- (34 *) Leibowitz, Martin L., “Alpha Hunters and Beta Grazers”, *Financial Analysts Journal*, Sept/Oct. 2005, p32-39 **BSC**
- (35*) Ronald N. Kahn and Andrew Rudd, “Does Historical Performance Predict Future Performance”, *Financial Analysts Journal*, Nov/Dec. 1995 V. 51(6), p 43-52. **BSC**
- (36) Robert J. Shiller, “Capitalism and Financial Innovation”. *Financial Analysts Journal*, January/February 2013, p21-25 **BSC**
- (37*) John C. Bogle, “The Modern Corporation and the Public Interest”, *Financial Analysts Journal*, 2018, Vol.74, No.3, p 8-17. **BSC**
- (38) Creswell, J., “Dirty Little Secrets – Mutual Funds”, *Fortune*, Sept 1, 2003, p 133-138. Vol. 148, Issue 4. Follow : see (19) above.
- (39*) Bailey, Jeffery V., “Some Thoughts on Performance-based Fees”, *Financial Analysts Journal*,July/Aug., 1990, Vol. 46(4), p 31-40. **BSC**
- (40*) Jeffrey Bailey, “Are Manager Universes Acceptable Performance Benchmarks?”, *The Journal of Portfolio Management*, Spring 1992 V. 18(3), p9-13.
- (41) Brinson, Gary P., “The Future of Investment Management”, *Financial Analysts Journal*, July/August 2005, p24-28. **BSC**

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			

Grades entered by Registrar:

WDN = Withdrawn from the course

DEF = Deferred

Academic Regulations

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

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

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 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

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

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

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 on 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: <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 are 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/learning-support/>

Centre for Student Academic Support

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: carleton.ca/csas.

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, in order to respond to your inquiries, please send all email from your Carleton CMail 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/>
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