



UNIVERSITY OF CALGARY
HASKAYNE SCHOOL OF BUSINESS

Investments & Portfolio Management

Course Outline

René Wells

January 16, 2020

This course prepares students for positions like Security Analyst or Credit Analyst, along with an introduction to portfolio management leading to positions like Portfolio Manager.

- See www.careers-in-finance.com/cf.htm

If you aspire to be an Investment Banker, a Corporate Banker, or having a role within a corporate finance department like Treasurer, you need to develop a deep understanding of how capital markets operate.

Even if you are more interested in a management role in corporate strategy, or in marketing, or in operations, you need to understand how capital markets influence private for-profit firms.

Countries like Canada and provinces like Alberta frequently access domestic and foreign capital markets to manage their borrowing needs.

- <https://www.fin.gc.ca/admin/secur/gocsec-eng.asp>
- <https://www.alberta.ca/investor-relations.aspx>

There are a lot of finance positions in Calgary.

- The Calgary CFA society has more than 3,000 members (charterholders + candidates) and growing (+6% year/year); See www.cfasyarakat.org/calgary/Pages/default.aspx

Job Demographics	Top 10 Employers
1 Corporate Financial Analyst	1 RBC
2 Portfolio Manager	2 BMO Financial Group
3 Research Analyst	3 Scotiabank Group
4 Other	4 TD Bank Financial Group
5 Chief-level Executive	5 CIBC World Markets Inc
6 Investment Banking Analyst	6 Suncor Energy Inc
7 Trader	7 TransCanada Corp.
8 Financial Advisor	8 Enbridge Inc.
9 Risk Manager	9 Mawer Inv. Management Ltd
10 Consultant	10 ATB Financial

When you are using resources at your disposal like time, money or land to create or acquire something with the expectation of future benefits, whatever the nature of these benefits you are investing and thus become an investor.

- The alternate use of such resources would be to consume which entails immediate benefits (rather than benefits in the future or long-lived benefits).
- When you are pursuing a university degree, you are using your time and money with the expectation of obtaining future benefits, possibly under the form of higher job satisfaction and higher income (higher social status?).
- So, an investment might take many forms (e.g. physical capital like a house, financial capital like a bank account, human capital like you).

A security is a specific form of investment that can be bought and sold. It entails a financial claim that is 'attached' to the security which ownership is transferable (with or without restrictions, with or without a maturity). Other financial assets can be in your name (e.g. a RRSP or a GIC).

- Securities are quoted and transacted in capital markets (e.g. stock-exchanges, dark pools, over-the-counter, derivatives markets, foreign currency markets, etc.).

'Investments' refers to an investor-centric body of knowledge used to maximize the probability that the goals of the investor will be achieved over time through a series of rational investment decisions while fully taking into consideration the needs, preferences and circumstances of the investor.

- How to characterize a given security, notably its risk-return profile;
 - ▶ in the context of a given portfolio construction and taking into consideration modern portfolio theory as well as available data.
- How to value a given security (its market price is fair or not?);
 - ▶ taking into consideration asset pricing theory and available data.
- How to best manage a given portfolio of securities;
 - ▶ taking into consideration the goals of the portfolio and according to the characteristics of various asset classes and expected return of various securities within each asset class;
 - ▶ with or without the use of derivatives and leverage.

The course focuses on investment decisions undertaken and implemented by or on behalf of investors for their own benefit according to investor's needs, preferences and circumstances.

The course provides a coherent analytical framework to structure investment and portfolio decisions on a rational basis, through:

- i) review of models and hypotheses;
- ii) review of empirical studies;
- iii) case analysis and problem solving to develop implementation skills.

- Describe the functions performed by capital markets, how such markets are organized, which type of securities are traded, and how such securities are traded;
- **Apply and critically evaluate** investment models and techniques (e.g. risk and return, diversification, asset pricing models, valuation of equity and fixed-income securities, portfolio style and optimization, asset allocation, active and passive asset management, usefulness of derivatives, and performance evaluation);
- Identify and analyze the key challenges and opportunities investors are confronted with and create processes to best resolve the said challenges and exploit the said opportunities by being able to **develop an Investment Policy Statement** appropriate to the specific needs, preferences and circumstances of a given investor and **propose portfolio construction/recommendations in compliance with the IPS** to contribute toward achieving the strategy and goals of the investor;
- **Exercise critical judgment** in weighting the benefits of a formal investment approach against its limitations, and balance these from an investor perspective;
- Use advanced numeracy and quantitative investment techniques **using Excel**;
- Develop **business case analysis and writing skills**.
- Engage and work effectively in groups.

Assessment	Weighting
Assignments (four)	20%
Group Projects (three case reports)	15%
Group Term Project (two reports + presentation)	20%
Group peer review	5%
Midterm Exam	20%
Final Exam	20%
Total	100%

The assignments are graded exercises to be completed online individually.

Each assignment is worth 5% and each question has uniform weight.

The assignments will be posted on McGraw-Hill Connect (use same name as userid)

- <https://connect.mheducation.com/class/r-wells-fnce-759---winter-2020>

The due dates are firm, but you have two tries for answering each question.

Assignment	Due by midnight on	Chapters
1	February 5, 2020	1 to 3, and 5
2	February 26, 2020	6 to 10
3	March 25, 2020	14 to 16
4	April 8, 2020	17 to 19

Assignments are good preparation for the examinations (midterm and final).

Up to 10 groups of four or five students.

- Form your group using the D2L form available for this purpose in D2L.

Reports must follow an executive summary format (**per required headings**).

- up to two pages for text (address the issues per instructions provided);
- thought processes need to be well explained (and not 'only quant');
- up to five pages for supplementary material (tables and figures).

Each report has to be submitted in a single pdf file to the D2L dropbox by no later than the start of class (otherwise report not graded and count for a 0).

Grading

- each report is worth 5% of the final grade;
 - ▶ hint: address the issues per instructions provided by the Instructor.

Each group will develop a specific term project, which will require regular work, an initial report, a final report and a presentation.

Reports must follow an executive summary format (**per required headings**).

- up to two pages for text (address the issues per instructions provided);
- thought processes need to be well explained (and not 'only quant');
- up to five pages for supplementary material (tables and figures).

Each report has to be submitted in a single pdf file to the D2L dropbox by no later than the start of class (otherwise report not graded and count for a 0).

At the end of the term, each group will present a concise summary of their term project in a corporate finance style for up to 15 minutes (inclusive of 'lessons learned').

Grading

- each report is worth 7.5% of the final grade and the presentation 5%;
 - ▶ hint: comply with the instructions provided by the Instructor.

Each and every student is expected to demonstrate having writing and teamwork skills commensurate to what is expected in FNCE 759.

- Communication skills are very valuable career-wise (see last three slides), but require a lot of time and effort to develop.

It is up to each student to put in the time and effort required for your team to perform well (i.e. 'pull your weight') and fine-tune the write-up.

- Follow instructions provided by Instructor;
- A recommendation needs to be actionable (and fact/analysis based);
- The analysis needs to be focused and uses judgment/logic;
- You need to use proper and precise finance terminology;
- Try to avoid superlatives like huge, minuscule...
- Write as if you were writing to a portfolio committee.

Both the mid-term and the final exam will have 20 multiple choice questions.

The questions will test your knowledge and skills acquired as follows:

1. Assignments
2. Cases
3. Slides
4. Textbook chapters

There will be review sessions prior to the mid-term and prior to the final.

- If you wish specific issue or quiz question reviewed, you are invited to send an email ahead of these two review sessions.

Excel

- Throughout the course and for the examinations, Excel is intended to be used to support learning and assessment.

Widget Inc. has three classes of preferred stock outstanding. Each class has a par value of \$10.00, ranking pari passu (i.e. equally) and the only relevant difference (other than the dividend) is that Class A is callable. Class A pays an annual dividend of \$0.50, Class B pays an annual dividend of \$0.25, and Class C pays a quarterly dividend of \$0.05. The market price of Class A is \$9.00 and \$4.50 for both Classes B and C.

Which class will *most likely* be selected by a portfolio manager over the two other classes as a better investment?

- a. Class A
- b. Class B
- c. Class C

Crib Sheet

$$\text{Return on Equity} = \text{Return on Total Assets} \times \text{Financial Leverage}$$

$$\text{Diluted EPS} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Adj. Weighted Average Common Shares Outstanding}}$$

$$\text{growth rate} = \text{ROE} \times (1 - \text{Dividend Payout Ratio})$$

$$D = \frac{V_- - V_+}{2 \times V_0 \times \Delta y}$$

$$\text{Return on Total Assets} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

$$\text{Retention Ratio} = \frac{\text{Growth Rate}}{\text{Return on Equity}}$$

$$V_0 = \sum_{t=1}^n \frac{D_0(1+g)^t}{(1+r)^t} + \frac{V_n}{(1+r)^n}$$

$$\text{ROE} = \frac{\text{Net Income}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Avg. Total Assets}} \times \frac{\text{Avg. Total Assets}}{\text{Avg. Shareholders' Equity}}$$

$$V_0 = \frac{D_0(1+g)}{r-g}$$

The Bloomberg Job Skills Report 2016: What Recruiters Want

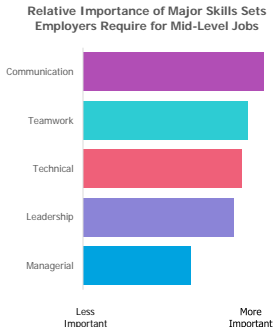
- See <https://www.bloomberg.com/graphics/2016-job-skills-report/>.

The recruiters surveyed also listed out their number one dream skill by industry, where the resounding winner was “communication skills”, the most wanted in eight of the 11 industries covered:

- Chemicals – communication skills (68%)
- Consulting – communication skills (72%)
- Consumer – leadership skills (70%)
- **Energy** – analytical thinking (82%)
- **Finance** – communication skills (74%)
- Healthcare – communication skills (60%)
- Manufacturing – communication skills (64%)
- Pharmaceuticals – communication skills (74%)
- Retail – analytical thinking (67%)
- Technology – communication skills (56%)
- Transportation – communication skills (80%)

Recruitment: Skills Sets Evaluated

Employers rank communication and teamwork skills as most important when hiring business graduates



To assess the skills that employers require of recent business graduate hires, survey respondents were asked to allocate 100 points across five major skill sets—communication, managerial skills, teamwork, leadership, and technical skills—based on their relative level of importance when hiring a recent MBA or business master's graduate for a mid-level job position.

Employers ranked communication skills as most important, followed by teamwork, technical skills, leadership skills, and managerial skills.

There are some regional variations:

- **United States and Asia Pacific:** Communication and teamwork ranked most important.
- **Europe:** Teamwork was rated most important, followed by communication and technical skills.
- **Latin America:** Leadership, technical skills, and teamwork are top-ranked.

Graduate
Management
Admission
Council®

Corporate Recruiters Survey Report 2017

Recruitment: Specific Skills

Top five specific skills are from the communication and teamwork domains

Skills Companies Seek in Graduate Business School Hires, Based on a Standardized Analysis of Skill Proficiency



Employers who plan to hire business school graduates in 2017 were asked to designate the proficiency level for 25 specific skills within five broader categories that they would require of a candidate being considered for a mid-level position. Employers ranked the specific subsets of skills in each category in order of proficiency level (from 'not required' to 'expert'). To compare the importance of each specific skill a Standardized Proficiency Rating was calculated for each skill.*

Of the five top-ranked skills, four fall within the communications category: *Oral communication, listening skills, written communication, and presentation skills.*

Overall, 4 of 5 skills related to teamwork—*adaptability, valuing others' opinions, ability to follow a leader, and cross-cultural sensitivity*—rank among the top 10 most important skills.

Managerial skills were consistently rated as least important, possibly because employers assume graduate business candidates have already honed these skills.

*Proficiency levels were calculated by multiplying the number of points respondents allocated to the overall skill (out of 100 total) by the level of proficiency rating recorded for the specific skill. Proficiency ratings were set on a 5-point scale, ranging from 0 (not required) to 5 (expert).

Graduate
Management
Admission
Council®

Corporate Recruiters Survey Report 2017