



FINANCE 601, Introduction to Finance Course Outline, Fall 2021

Master of Finance DeGroot School of Business McMaster University

Course Objective

This course, being an introduction to modern business finance at the graduate level, examines various fundamental financial concepts, in order to prepare students for the specialized courses that the Master of Finance program offers. It also introduces students to various analytical and quantitative skills as required for such courses.

Instructor, Teaching Assistant, and Contact Information

Instructor: Clarence C.Y. Kwan, Professor of Finance; email: kwanc@mcmaster.ca .

Teaching Assistant: Laite Guo, Finance Ph.D. Student; email: guo/12@mcmaster.ca .

Office Hours: TBA (to be announced in class and posted on AVENUE TO LEARN when confirmed).

Important Notice: For email communications with the instructor or the teaching assistant, please always use McMaster's regular email system. For timely communications, it is very important that McMaster email accounts (***@mcmaster.ca) be used, with "FINANCE 601" being the subject heading. Otherwise, there will be either delays in response or no response at all.

Course Elements

| | | | |
|---------------------|------------------|-----------------|---------------------|
| Credit Value: 3 | Leadership: No | IT Skills: No | Global View: Yes |
| A2L: Yes | Ethics: Yes | Numeracy: Yes | Written Skills: Yes |
| Participation: Yes | Innovation: Yes | Group Work: Yes | Oral Skills: Yes |
| Evidence-Based: Yes | Experiential: No | Final Exam: Yes | Guest Speaker: No |

Course Description

The course covers a broad range of topics in modern finance, with analytical details and conceptual underpinnings emphasized in some topics. After some preliminary materials, the course considers time value concepts and applies them directly to practical loan problems and to valuation from investors' perspectives, including bond and stock valuation. The course also considers risk-return trade-off in portfolio investments, capital market theory, and market efficiency issues.

Turning to corporate finance, the course considers corporate investment decisions (capital budgeting) and long-term sources of funds for financing the investments. Pertaining to long-term financing decisions, the major topics include the cost of capital, capital structure, and dividend policy. Financial instruments with options, including call and put options, rights, warrants, and convertible securities, are considered as well.

The course then considers working capital management, short-term and intermediate-term financing, and leasing decisions. The final topics covered include merger and corporate structuring.

Achieving the Course Objective

As many financial concepts are analytical, students are expected to be already familiar with various mathematical topics, such as finite and infinite series, matrix algebra, differential and integral calculus, and methods of mathematical proofs. Further, students are expected to be familiar with fundamental statistical concepts such as discrete and continuous probability distributions, sampling, and estimation. To achieve the course objective also requires a considerable amount of out-of-class work by each student. In addition to keeping up with the reading materials, problem solving throughout the course is highly recommended.

Although the solutions to practice problems are available, students are expected to solve the problems independently before reading the solutions. Experience has shown that independent work significantly enhances problem-solving and related quantitative skills. This is also the most effective way to prepare for examinations.

Main Courseware, Supplementary Courseware, and Major Reference Book

Main Courseware: Clarence C.Y. Kwan, FINANCE 601, *Introduction to Finance: Lecture Notes, Supplementary Materials, Illustrative Examples, and Exercises*, Fall 2021 (hereafter, Lecture Notes).

Supplementary Courseware: Clarence C.Y. Kwan, *Preparatory Mathematics and Selected Topics in Statistics for Students in Graduate Finance Programs*, Fall 2021 (hereafter, Math/Stats Notes).

Major Reference Book: Jonathan Berk, Peter DeMarzo, and David Stangeland, *Corporate Finance, Fifth Canadian Edition*, 2022, Pearson Canada (hereafter, BDS).

Both the main courseware and the supplementary courseware are distributed to registered students online via AVENUE. Most of the materials in the supplementary courseware are intended for self-study to strengthen the analytical skills of students. However, some lectures are directly based on the materials there.

Evaluation Scheme and Grading Scale

Performance in FINANCE 601 is based on four components, including three Math/Stats examinations during MFIN Transition (15% in total), a mid-term examination (25%), a major assignment (25%), and a cumulative final examination (35%). Any changes to the evaluation scheme will be announced in class and posted on AVENUE. The two examinations are primarily on materials in the Lecture Notes and BDS, as well as any supplementary materials that are distributed during the Term. However, some materials from the Math/Stats Notes may also be

included. The date, time, duration, and coverage of the examinations, once confirmed, will be announced in class and posted on AVENUE.

This being a graduate course, B- is the lowest passing grade. The conversion from percentage grades to letter grades is as follows: 90-100%, A+; 85-89%, A; 80-84%, A-; 75-79%, B+; 70-74%, B; 60-69%, B-; 0-59%, F. The conversion will be adjusted if there is a cluster of percentage grades around a breakpoint; that is, around 90%, 85%, 80%, 75%, 70%, or 60%. However, students who have achieved percentage grades no lower than any breakpoint will be unaffected by the adjustment.

Important Notice:

1. The mid-term examination will be written outside regular class times. There may be extra classes to attend during the Term, conditional on the feasibility for scheduling them. Once confirmed, the details will be announced in class and on AVENUE.
2. Students are expected to adhere strictly to the standards of academic ethics of the University.
3. The part of the mid-term examination paper containing multiple-choice questions will not be released to students after grading; neither will the entire final examination paper.
4. Some bonus marks can be earned by students for independently reporting to the instructor typographical errors in various course materials throughout the Term. Such bonus marks may help participating students achieve better letter grades, in situations where the computed weighted averages of percentage grades are marginally below the corresponding breakpoints for grade conversion.

The Course Outline

1. Preliminaries

BDS, Chapters 1, 2, and 3.
Lecture Notes, Chapter 1.
Math/Stats Notes, Chapters 1 and 2.

2. Valuation of Investments

a. The Time Value of Money

BDS, Chapter 4.
Lecture Notes, Chapter 2; exercises in Section A.1 of Appendix A (*hereafter*, A.1), #1-4; exercises in Section A.2, of Appendix A (*hereafter*, A.2.1, A.2.2, ..., A.2.7 for the subsections there), A.2.1, #1-6, A.2.2, #1, #4, A.2.3, #1, #4, and A.2.4, #1, #4.
Math/Stats Notes, Chapters 3, 4, and 7, with special attention to Chapter 7, Section 7.7, Appendix: Compound Interests.

Y. Feng and C.C.Y. Kwan, "Interest Rate Conversion," *Spreadsheets in Education*, 8, no. 1, (2015), Article 3.

b. Bond Valuation and Interest Rate Determination

BDS, Chapters 5 and 6.

Lecture Notes, Chapter 3; exercises in A.1, #5-11; exercises in A.2.1, #7-16, A.2.2, #2-3, A.2.3, #2-3, and A.2.4, #2-3.

Math/Stats Notes, Chapters 3 and 4.

Y. Feng and C.C.Y. Kwan, "Time-Value Concepts, Bond Valuation, and Corresponding Spreadsheet Functions," *Spreadsheets in Education*, 5, no. 1, (2011), Article 4.

Y. Feng and C.C.Y. Kwan, "Bond Duration: A Pedagogic Illustration," *Spreadsheets in Education*, 5, no. 3, (2012), Article 1.

c. Stock Valuation

BDS, Chapter 7.

Lecture Notes, Chapter 4; exercise in A.1, #12; exercises in A.2.1, #17, A.2.2, #4, A.2.3, #4, and A.2.4, #4.

Math/Stats Notes, Chapter 3.

d. Risk, Return, and Portfolio Theory

BDS, Chapters 10 and 11.

Lecture Notes, Chapter 5; exercises in A.1, #14-15, #18; exercises in A.2.1, #18-21, A.2.5, #3, and A.2.6, #3, and A.2.7, #3-4.

Math/Stats Notes, Chapters 5, 6, 8, and 14, with special attention to Chapter 8, Section 8.5, Optimization.

e. Capital Market Theory

BDS, Chapters 11 and 12.

Lecture Notes, Chapter 6; exercises in A.1, #13, 16-26; exercises in A.2.1, #22-27, A.2.5, #4, A.2.6, #4, and A.2.7, #4.

Math/Stats Notes, Chapters 7, 8, and 9.

C.C.Y. Kwan, "The Arbitrage Pricing Model: A Pedagogic Derivation and a Spreadsheet-Based Illustration," *Spreadsheets in Education*, 9, no. 1, (2016), Article 4.

f. Market Efficiency

BDS, Chapter 13.

Lecture Notes, Chapter 7.

3. Capital Budgeting

BDS, Chapters 8, 9, and 21.

Lecture Notes, Chapter 8; exercises in A.1, #27-31; exercises in A.2.1, #28-30, A.2.5, #2, A.2.5, #2, and A.2.7, #2.

Math/Stats Notes, Chapter 3.

4. Long-term Sources of Funds

BDS, Chapters 23 and 24.

Lecture Notes, Chapter 9; exercises in A.1, #32-37; exercises in A.2.1, #31-33, A.2.5, #1, A.2.6, #1, and A.2.7, #1.

5. Long-term Financing Decisions

a. The Cost of Capital

BDS, Chapter 12.

Lecture Notes, Chapter 10; exercise in A.1, #34; exercise in A.2.5, #1, A.2.6, #1, and A.2.7, #2.

b. Capital Structure

BDS, Chapters 17 and 18.

Lecture Notes, Chapter 11; exercises in A.1, #39-45; exercise in A.2.1, #35.
Math/Stats Notes, Chapter 3.

c. Dividend Policy

BDS, Chapter 20.

Lecture Notes, Chapter 12; exercises in A.1, #46-49; exercises in A.2.1, #36-37.
Math/Stats Notes, Chapter 3.

6. Options, Rights, Warrants, and Convertibles

a. Call and Put Options

BDS, Chapters 14 and 15.

Lecture Notes, Chapter 13; exercises in A.1, #50-52.

Math/Stats Notes, Chapters 4, 7, 8, 9, 10, 11, 13, and 15, with special attention to Chapter, 13, Section 13.5, The Binomial Option Pricing Model.

Y. Feng and C.C.Y. Kwan, "Connecting Binomial and Black-Scholes Option Pricing Models: A Spreadsheet-Based Illustration," *Spreadsheets in Education*, 5, no. 3, (2012), Article 2.

b. Rights, Warrants, and Convertibles

Lecture Notes, Chapter 14; exercises in A.1, #53-56.

7. Short-term Financing

BDS, Chapters 26 and 27.

Lecture Notes, Chapter 15; exercises in A.1, #57-59.

8. Leasing

BDS, Chapter 25.
Lecture Notes, Chapter 16; exercises in A.1, #60-63.
Math/Stats Notes, Chapter 3.

9. Merger and Corporate Restructuring

BDS, Chapters 28 and 29.
Lecture Notes, Chapter 17; exercises in A.1, #64-66.

Other Useful General Information for Student (The materials below are duplicated *verbatim* from a recent template of the School's MFIN course outlines.)

COMMUNICATION AND FEEDBACK

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants. All students must receive feedback regarding their progress prior to the final date by which a student may cancel the course without failure by default.

- For Level 1 and Level 2 courses, this feedback must equal a minimum of 20% of the final grade.
- For Level 3 courses and above, this feedback must equal a minimum of 10% of the final grade.

Instructors may solicit feedback via an informal course review with students by Week #4 to allow time for modifications in curriculum delivery.

REQUESTING RELIEF FOR MISSED ACADEMIC WORK

In the event of an absence for medical or other reasons, students should review and follow the Missed Term Work regulations that are outlined on the Master of Finance website;

<https://mfin.degroote.mcmaster.ca/current-students/missed-term-work/>

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

AUTHENTICITY/PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster’s use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ON-LINE ELEMENT

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's

Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

RESEARCH USING HUMAN SUBJECTS

All researchers conducting research that involves human participants, their records or their biological material are required to receive approval from one of McMaster's Research Ethics Boards before (a) they can recruit participants and (b) collect or access their data. Failure to comply with relevant policies is a research misconduct matter. Contact these boards for further information about your requirements and the application process.
McMaster Research Ethics Board (General board): <https://reo.mcmaster.ca/>
Hamilton Integrated Research Ethics Board (Medical board): <http://www.hireb.ca/>

ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in Finance XXXX will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.