



# FINANCE 601 Introduction to Finance Fall 2018 Course Outline

# Finance and Business Economics Area DeGroote School of Business McMaster University

# **C**OURSE **O**BJECTIVE

This course, being an introduction to modern business finance, 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 AND CONTACT INFORMATION

Instructor: Clarence C.Y. Kwan, Professor of Finance Email: <u>kwanc@mcmaster.ca</u> Office Location: DSB-312 Office Hours: TBD Telephone: (905) 525-9140 ext. 23979 Class Location: **Section 1** – DSB 505 **Section 2** – DSB 505 Class Time: **Section 1** – Mondays 11:30 - 2:20 pm **Section 2** – Wednesdays 11:30 - 2:20 pm TA: TBD TA Email: TBD TA Office Location: TBD TA Office Hours: TBD TA Telephone: TBD \*\* TA will be announced in class and on Avenue to Learn when confirmed\*\*

**Important Notice:** As the AVENUE site for this course has not been set up for e-mail communications between individual students and the instructor or the teaching assistants, <u>please use McMaster's regular e-mail system instead</u>. For such communications, it is important that McMaster e-mail accounts be used, with "FINANCE 601" being the subject heading.

### **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 the trade-off between risk and return 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 Objectives**

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.

#### **COURSE MATERIALS AND READINGS**

#### Textbook

Jonathan Berk, Peter DeMarzo, and David Stangeland, *Corporate Finance, Fourth Canadian Edition*, 2019, Pearson Canada; ISBN 978-0-13-305529-0 (hereafter, BDS).

#### **Main Courseware**

Clarence C.Y. Kwan, FINANCE 601, Introduction to Finance: *Lecture Notes, Supplementary Materials, Illustrative Examples, and Exercises*, Fall 2018 (hereafter, Lecture Notes).

#### Supplementary Courseware

Clarence C.Y. Kwan, *Preparatory Mathematics and Selected Topics in Statistics for Students in Graduate Finance Programs*, Fall 2018 (hereafter, Math/Stats Notes).





The main courseware is available for purchase from McMaster's Campus Store. The supplementary courseware is distributed to registered students (at the start of the Transition Weeks). 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.

#### **Calculators**

Only CASIO fx-991ms, which is the McMaster standard and officially approved calculator, may be used in FINANCE 601 examinations. It is each student's own responsibility to learn the various operational features of CASIO fx-991ms. Notice that present-value tables will not be provided in examinations.

### **EVALUATION**

Performance in FINANCE 601 is based on four components. They include a test on materials from the Math/Stats Notes (10%), two mid-term examinations (25% each), and a cumulative final examination (40%). The three 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, location, and coverage of the test and each examination, once confirmed, will be announced in class and on AVENUE.

Missed tests/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. Late assignments will be penalized xxxxx% for each day they are late. Your final grade will be calculated as follows:

#### **Components and Weights**

Test	10%
Midterm #1	25%
Midterm #2	25%
Final Exam – The final exam will be cumulative	40%
Total	100%





#### Conversion

Letter Grade	Percent	Points
A+	90-100	12
А	85-89	11
A-	80-84	10
B+	75-79	9
В	70-74	8
B-	60-69	7
F	00-59	0

This being a graduate course, B- is the lowest passing grade.

### 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.

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.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at: www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

- 1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- 2. Improper collaboration in group work.
- 3. Copying or using unauthorized aids in tests and examinations

### AUTHENTICITY/PLAGIARISM DETECTION

In this course we will be using a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work.Students will be expected to submit their work electronically either directly to Turnitin.com or via Avenue to Learn (A2L) plagiarism detection (a service supported by Turnitin.com) so can be checked for academic dishonesty. Students who do not wish to submit their work through A2L and/or Turnitin.com must still submit an electronic and/or hardcopy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com or A2L.





All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). To see the Turnitin.com Policy, please go to;

www.mcmaster.ca/academicintegrity.

# REQUESTING RELIEF FOR MISSED ACADEMIC WORK

Late assignments will not be accepted. No extensions are available except under extraordinary circumstances. Please discuss any extenuating situation with your instructor at the earliest possible opportunity. Please refer to the policy and procedure on the DeGroote website at the link below;

http://ug.degroote.mcmaster.ca/forms-and-resources/missed-course-work-policy/

# **STUDENT ACCESSIBILITY SERVICES**

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca.

For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities:

http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf

#### 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 requiring a RISO accommodation should submit their request, including the dates/times needing to be accommodated and the courses which will be impacted, to their Faculty Office normally within 10 days of the beginning of term 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.





# POTENTIAL MODIFICATION TO THE COURSE

The instructor reserves the right to modify elements of the course during the term. There may be changes to the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

### COPYRIGHT

McMaster University has signed a license with the Canadian Copyright Licensing Agency (Access Copyright) which allows professors, students, and staff to make copies allowed under *fair dealing*. Fair dealing with a work does not require the permission of the copyright owner or the payment of royalties as long as the purpose for the material is private study, and that the total amount copied equals **NO MORE THAN 10 percent** of a work or an entire chapter which is less than 20 percent of a work. In other words, it is illegal to: i) copy an entire book, or ii) repeatedly copy smaller sections of a publication that cumulatively cover over 10 percent of the total work's content. Please refer to the following copyright guide for further information:

http://www.copyright.mcmaster.ca/Access Copyright Agreement

### ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in MFIN 601 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





### SOME IMPORTANT NOTES FOR STUDENTS

- 1. The mathematics test and the two mid-term examinations will be written outside regular class times. Further, 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 to the standards of academic ethics of the University. Please see the section on academic integrity on page 4.
- 3. No electronic devices are permissible in the test and the three examinations. The only exception is the McMaster standard calculator (CASIO fx-991ms), which is allowed during each examination.
- 4. Test and examination papers may have multiple versions.
- 5. A randomized seating plan may be implemented for the test and each examination.
- 6. The part of each mid-term examination paper containing multiple-choice questions will not be released to students after grading; neither will the entire final examination paper.
- 7. Some graded test and examination papers will be photocopied and archived for statistical and pedagogic purposes.
- 8. 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 official cutoffs.





# **C**OURSE SCHEDULE

#### Finance 601 Introduction to Finance Fall 2018 Course Schedule

READING LIST				
Articles				
Preliminaries BDS Chapters 1, 2, and 3				
Lecture Notes Chapter 1				
<ul> <li>Math/Stats Notes Chanters 1 and 2 1</li> </ul>				
<ul> <li>Chapter 12 of the Math/Stats Notes which introduces the tonic of difference</li> </ul>				
equations, though not part of the required readings here, is valuable preparatory				
material for graduate-level economics courses.				
VALUATION OF INVESTMENTS         a) The Time Value of Money				
				BDS, Chapter 4.2
<ul> <li>Lecture Notes, Chapter 2; exercises in Section A.1 of Appendix A (<i>hereafter</i>, A1), #1- 4;</li> </ul>				
<ul> <li>exercises in Section A.2, of Appendix A (<i>hereafter</i>, A2.1, A2.2, and A2.3 for the three subsections there). A2.1, #1-6, and A2.2, #1.</li> </ul>				
<ul> <li>Math/Stats Notes, Chapters 3, 4, and 7, with special attention to Chapter 7, Section 7.7, Appendix: Compound Interests.</li> </ul>				
Any exercises from BDS will be announced in class and on AVENUE.				
b) Bond Valuation and Interest Rate Determination				
• BDS, Chapters 5 and 6.				
<ul> <li>Lecture Notes, Chapter 3; exercises in A1, #5-11; exercises in A2.1, #7-16, and in A2.2. #2-3.</li> </ul>				
Math/Stats Notes, Chapters 3 and 4.				
• Feng and C.C.Y. Kwan, "Time-Value Concepts, Bond Valuation, and				
Corresponding Spreadsheet Functions," Spreadsheets in Education, 5, no. 1,				
(2011), Article 4; electronic link:				
http://epublications.bond.edu.au/ejsie/vol5/iss1/4/				
• Y. Feng and C.C.Y. Kwan, "Bond Duration: A Pedagogic Illustration," Spreadsheets in				
Education, <u>5</u> , no. 3, (2012), Article 1; electronic link:				





	c) Stock Valuation		
	• BDS, Chapter 7.		
	• Lecture Notes Chapter 4: exercise in A1 #12: exercises in A2.1 #17 and in A2.2		
	#4		
	• Math/Stats Notes Chapter 3		
	- main statis motos, enapter s		
	d) Risk, Return, and Portfolio Theory		
	<ul> <li>BDS, Chapters 10 and 11.</li> </ul>		
	• Lecture Notes, Chapter 5; exercises in A1, #14-15, and 18(a); exercises in A2.1, #18-		
	21, and in A2.3, #3.		
	<ul> <li>Math/Stats Notes, Chapters 5, 6, 8, and 14, with special attention to Chapter 8,</li> </ul>		
	Section 8.5, Optimization.		
	e) Capital Market Theory		
	BDS, Chapters 11 and 12		
	<ul> <li>Lecture Notes, Chapter 6: exercises in A1, #13, 16-17, 18(b), 18(c), and 19-26.</li> </ul>		
	exercises in A2.1 #22-27 and in A2.3 #4		
	f) Market Efficiency		
	BDS, Chapter 13.		
	Lecture Notes, Chapter 7.		
	Capital Budgeting		
	BDS Chapters 8 9 and 21		
	<ul> <li>Lecture Notes Chapter 8: exercises in A1 #27-31: exercises in A2.1 #28-30 and in</li> </ul>		
3	$\Delta 2 3 \pm 2$		
	Math/Stats Notes Chanter 3		
	Long-Term Sources of Funds		
	<ul> <li>BDS, Chapters 23 and 24.</li> </ul>		
4	• Lecture Notes, Chapter 9; exercises in A1, #32-37; exercises in A2.1, #31-33, and in		
	A2.3, #1(a).		
	LONG-TERIVI FINANCING DECISIONS		
	a) The Cost of Capital		
	• BDS, Chapter 12.		
	<ul> <li>Lecture Notes, Chapter 10; exercise in A1, #34; exercise in A2.3, #1(b).</li> </ul>		
	b) Capital Structure		
5	BDS. Chapters 17 and 18		
-	<ul> <li>Lecture Notes, Chapter 11: exercises in A1, #39-45: exercise in A2.1, #35.</li> </ul>		
	Math/Stats Notes Chapter 3.		



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	c) Dividend Policy		
	BDS, Chapter 20.		
	• Lecture Notes, Chapter 12; exercises in A1, #46-49; exercises in A2.1, #36-37.		
	Math/Stats Notes, Chapter 3.		
	OPTIONS, RIGHTS, WARRANTS, AND CONVERTIBLES		
	a) Call and Put Options		
	BDS, Chapters 14 and 15.		
	<ul> <li>Lecture Notes, Chapter 13; exercises in A1, #50-52.</li> </ul>		
	• 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.		
6	• 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: electronic link:		
	http://epublications.bond.edu.au/ejsie/vol5/iss3/2/.		
	b) Rights, Warrants, and Convertibles		
	Lecture Notes, Chapter 14; exercises in A1, #53-56.		
	Short-Term Financing		
7	BDS, Chapters 26 and 27.		
,	• Lecture Notes, Chapter 15; exercises in A1, #57-59.		
	Leasing		
	BDS. Chapter 25.		
8	<ul> <li>Lecture Notes, Chapter 16: exercises in A1, #60-63.</li> </ul>		
	Math/Stats Notes, Chapter 3		
	Merger and Corporate Restructuring		
9	BDS, Chapters 28 and 29.		
5	<ul> <li>Lecture Notes, Chapter 17; exercises in A1, #64-66.</li> </ul>		

### **Other Useful General Information for Students**

Please review the Graduate Examinations Policy (if applicable): <a href="http://www.mcmaster.ca/policy/Students-AcademicStudies/GradExamsPolicy.pdf">http://www.mcmaster.ca/policy/Students-AcademicStudies/GradExamsPolicy.pdf</a>.