

COURSE INFORMATION

Course title:	Financing Engineering	Credits:	1.5
Course code:	BAFI 516	Class location:	HA 335
Session, term, period:	2019 W1, Period 7	Class times:	T/H 8:00 AM -10:00 AM
Section(s):	001	Pre-requisites:	BAFI 500
Course duration:	Oct. 29 to Nov. 29, 2019	Co-requisites:	None
Division:	Finance		
Program:	MBA		

INSTRUCTOR INFORMATION

Instructor:	Professor Lorenzo Garlappi	Office location:	HA 870
Phone:	604-822-8848	Office hours:	T/H 4:00 PM -5:00 PM or by appointment
Email:	lorenzo.garlappi@sauder.ubc.ca		

Teaching assistant:	Khalil Esmkhani
Email:	khalil.esmkhani@sauder.ubc.ca

COURSE DESCRIPTION

Financial engineering involves the creative use of financial products and strategies to solve important problems in corporate finance and investments. Examples include: using packages of securities to shape risks and returns (e.g., using “zero-cost collars” to help company founders realize value from an IPO); banks offering “rate riser” and “index linked” deposits and other structured products; use of Asset-Backed Commercial Paper to help finance corporate investments; the role of loan securitization and Collateralized Debt Obligations in mortgages, credit cards, etc. to mobilize capital, pool and shape risks.

COURSE FORMAT

Class time will be used for a combination of lectures, discussion, and solving sample problems. Attendance is expected to accomplish the learning objectives below. Lectures and discussions will assume that students have pre-read the corresponding lecture notes.

LEARNING OBJECTIVES

The course will introduce students to the basic tools of financial engineering and risk management: futures, options, and swaps contracts for equity, fixed income, and commodities. In the first part, we will review/learn the basic tools. The tools covered in this part include: options, futures, structured products, and credit risk. At the end of the course, students should be able to (i) design financial products for simple hedging purpose and to value the products, (ii) design reasonable hedging strategies for a portfolio of derivatives, (iii) discuss intelligently the key properties of popular derivative contracts, strategies and valuation models, the uses and abuses of derivatives and the function of risk management

ASSESSMENTS

Summary

<u>Component</u>	<u>Weight</u>
Assignment	25%
Final Exam	35%

Participation	10%
Cases (2)	<u>30%</u>
Total	<u>100%</u>

Details of Assessments

Homework assignments

There will be one homework assignments. This assignment should be individual work.

Cases

We will discuss two business cases in the course. The case studies provide opportunities to see how some of the financial concepts and tools help understand and solve real world problems. Case study lectures take the form of class discussion. Careful reading of the cases before class will be important for better understanding of the lectures. Students will be asked to form study groups. Groups will be randomly selected to present different aspects of the case in class. The cases can be purchased from Harvard Case website:

<https://hbsp.harvard.edu/import/668704>

You need to register in order to access the cases.

Final Exam

There will be a final exam. More details will be provided during the course.

Participation

Please make every effort to attend the lectures and review the material beforehand. Come well prepared and ready to contribute to the lecture discussion.

LEARNING MATERIALS

Reading Materials:

McDonald (McD): "Derivatives Markets" Third Edition. A customized copy is available at the Bookstore. An e-book version is also available from VitalSource (www.vitalsource.com) To purchase the e-book version you need to search the book by author, title, or ISBN 9780321543080.

Activity Fees: Harvard Business cases fee

COURSE-SPECIFIC POLICIES AND RESOURCES

Missed or late assignments, and regrading of assessments

Late submissions will not be accepted and will receive a grade of zero. [This is standard for RHL courses.] [Enumerate other policies on missed or late assignments, and regrading of assessments.]

Academic Concessions

If extenuating circumstances arise, please contact the RHL Graduate School program office as early as reasonably possible, and submit an [Academic Concession Request & Declaration Form](https://webforms.sauder.ubc.ca/academic-concession-rhlee) <https://webforms.sauder.ubc.ca/academic-concession-rhlee>. If an academic concession is granted during the course, the student will be provided options by RHL, or by the instructor in consultation with RHL, per [UBC's policy on Academic Concession](#).

POLICIES APPLICABLE TO COURSES IN THE ROBERT H. LEE GRADUATE SCHOOL

Attendance

Excepting extenuating circumstances, students are expected to attend 100% of their scheduled class hours. Absent students limit their own academic potential, and that of their classmates, and cause unnecessary disruption to the learning environment. Students missing more than 20% of the total scheduled class hours for a course (including classes held during the add/drop period) without having

received an academic concession will be withdrawn from that course. Withdrawals, depending on timing, could result in a “W” or an “F” standing on the transcript.

Punctuality

Students are expected to arrive for classes and activities on time and fully prepared to engage. Late arrivals may be refused entry at the discretion of the instructor or activity lead. Students arriving later than halfway through a scheduled class will be treated as absent for that class.

Electronic Devices

Devices such as laptops, tablets, and cell phones are not permitted to be used in class unless directed by the instructor for in-class activities. Students who do not follow the School’s policy in this regard may be required to leave the room for the remainder of the class, so that they do not distract others. Research shows that students’ use of laptops in class has negative implications for the learning environment, including reducing their own grades and the grades of those sitting around them.

Citation Style

Please use the American Psychological Association (APA) reference style to cite your sources.

Details of the above policies and other RHL Policies are available at:

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625>

UNIVERSITY POLICIES AND RESOURCES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website at <https://senate.ubc.ca/policies-resources-support-student-success>.

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President’s Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

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constitutes a breach of copyright and may lead to academic discipline. Audio or video recording of classes are not permitted without the prior approval of the Instructor.]

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (Musqueam) people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

COURSE SCHEDULE

(Subject to change)

Class#	CLASS TOPICS	ACTIVITIES / READINGS	ASSIGNMENTS / DELIVERABLES
Class 1	Introduction	Lecture Notes + McD Ch. 1,2	
Class 2	Forwards/Futures	Lecture Notes + MC Ch. 4,5	
Class 3	Forwards/Futures	Lecture Notes + McD Ch 4,5	
Class 4	Options	Lecture Notes + McD Ch 9	
Class 5	Options	Lecture Notes + McD Ch 9,10	Assignment due
Class 6	Option Pricing	Lecture Notes + McD Ch 12	
Class 7	Options in a Compensation package	Discussion of Case "Sally Jameson"	Written Case Report due
Class 8	Option Hedging	Lecture Notes + McD Ch 12.3	
Class 9	Corporate Securities and Credit Risk	Lecture Notes + McD Ch 16, 27	
Class 10	Corporate Securities and Credit Risk	Lecture Notes + McD Ch 16, 27	
Class 11	Credit Default Swap	Discussion of Case "First American Bank"	Written Case Report due
Class 12	Review		