UBC SAUDER SCHOOL OF BUSINESS

COURSE INFORMATION

Course title:	Real Estate Investment Analysis	5		
Course code:	BAUL 501	Credits:	1.5	
Session and term:	2023 W1	Class location:	HA 335	
Section(s):	001	Class times:	TueThu 2PM-4PM	
Course duration:	Oct 30-Dec 1, 2023	Pre-requisites:	n/a	
Division:	SBE	Co-requisites:	n/a	
INSTRUCTOR INFORMATION				
Instructor:	Tom Davidoff, PhD			
Phone:	(604) 822-8325	Office location:	HA 273	
Email:	thomas.davidoff@sauder.ubc.ca	a Office hours:	Thu 11-12 (or by appointment)	

COURSE DESCRIPTION

This course is an introduction to the financing of real estate acquisitions and development. The focus will be on debt financing through mortgage loans for residential and commercial properties. Topics will include the mathematics of mortgage design and pricing, the regulatory and legal framework that distinguishes mortgages from other types of secured debt, and mortgage derivatives such as mortgage-backed securities. We will also look at the structure of equity finance through partnership arrangements and real estate investment trusts. In combination with BAUL500, this class should prepare students well for careers in real estate acquisitions, development, finance, brokerage or in city planning or government.

COURSE FORMAT

This course will combine lectures, discussion, and problem sets. Problem sets will be due before each class meeting (except the first) and we will review these in class. Additional lecture material will be posted to canvas.

LEARNING OBJECTIVES

- By the end of this course, students will be able to:
- Compute the payments, outstanding balances, effective interest rate, prepayment penalties or amortization period on a loan
- Characterize the basic structure of reverse mortgages
- Compute the default option value embedded in a conventional or reverse mortgage in a stylized case
- Answer questions concerning the legal foundations of real properties and mortgages
- Understand fundamental measures used in residential mortgage underwriting
- Understand the mechanics and simple valuation of pass-through, tranched, and interest/principal-only mortgage-backed securities



- Work through the profitability of a real estate investment and the impact of different financing choices under different macroeconomic conditions.
- Calculate measures of real estate investment trust value and profitability

SUSTAINABLE DEVELOPMENT GOALS (SDGS)

At UBC Sauder, we are committed to responsible business practices that can have transformative impacts on society. One of the ways we are reinforcing our commitment to responsible business is by showcasing relevant content in our courses via the lens of the <u>United Nations Sustainable Development</u> <u>Goals</u>. In this course, we will touch on topics that relate to the following goals:

Sustainable Development Goal	Description of how and when the goal is covered in the course.
Goal 1: No Poverty 1 ^{NO} 月 ¥ 十 十十	Near the midterm, we will measure housing affordability in terms of loan qualification criteria.
Goal 11: Sustainable Cities and Communities	At the end of the course, we will have a brief discussion of the role of housing finance policy in the context of housing affordability problems.

ASSESSMENT	S
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<u>Weight</u>
30%
50%
<u> 20</u> %
<u>100</u> %

Details of Assessments

Assignments due before class will mostly be graded based on completion, as I do not want to penalize trying but getting answers wrong, or reward borrowing answers from friends. Class participation is mostly attendance, but may be bumped up by a clearly strong effort to follow the class discussion.



LEARNING MATERIALS

Required:

- Brueggeman and Fisher, Real Estate Finance and Investments (current edition is 17, 14th+ fine) •
- Real Estate Finance in a Canadian Context (free on Canvas)

Estimated cost of required materials: \$100 if you rent most recent B&F Additional materials recommended but not required: various articles

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.

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. 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.

Other Course Policies and Resources

See above regarding assignments. Generally, if concessions are needed, discuss ASAP with the RHL Graduate School Program office.

Code Plagiarism

Code plagiarism falls under the UBC policy for Academic Misconduct. Students must correctly cite any code that has been authored by someone else or by the student themselves for other assignments. Cases of "reuse" may include, but are not limited to:

- the reproduction (copying and pasting) of code with none or minimal reformatting (e.g., changing the name of the variables)
- the translation of an algorithm or a script from a language to another
- the generation of code by automatic code-generations software

An "adequate acknowledgement" requires a detailed identification of the (parts of the) code reused and a full citation of the original source code that has been reused.

Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

POLICIES APPLICABLE TO COURSES IN THE ROBERT H. LEE GRADUATE SCHOOL [DO NOT MODIFY] 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.

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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 [DO NOT MODIFY THIS PARAGRAPH]

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.

Respect for Equity, Diversity, and Inclusion

The UBC Sauder School of Business strives to promote an intellectual community that is enhanced by diversity along various dimensions including Indigeneity (including identification as First Nation, Métis, or Inuit), race, ethnicity, gender identity, sexual orientation, religion, political beliefs, social class, and/or disability. It is critical that students from diverse backgrounds and perspectives be valued in and well-served by their courses. Furthermore, the diversity that students bring to the classroom should be viewed as a resource, benefit, and source of strength for your learning experience. It is expected that all students and members of our community conduct themselves with empathy and respect for others.

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

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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.

Use of Artificial Intelligence

Generative AI Permitted Where Specified With Attribution

For this course, students may use generative artificial intelligence (AI), including ChatGPT, for specific assessments or coursework, where it is expressly specified by the instructor. In these cases of permitted use, students must disclose any use of AI-generated material as per the assessment guidelines.

COPYRIGHT

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline and could be subject to legal action. Any lecture recordings are for the sole use of the instructor and students enrolled in the class. In no case may the lecture recording or part of the recording be used by students for any other purpose, either personal or commercial. Further, audio or video recording of classes are not permitted without the prior consent of the instructor.

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xmməθkməýəm (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 with consultation)

			Readings or	
Class	Date	Торіс	Activities	Assessments due
1	Oct 31	Course intro,	REFCC 4,5	NA
		mortgage and	(optional BF 1+2)	
		property law		
2	Nov 2	Mortgage Math	BF 4; REFCC	PS 1
3	Nov 7	Rate risk: variable	BF 5, REFCC 9	PS 2
		rate loans and		
		prepayment		
4	Nov 9	Mortgage default	Canvas articles	PS 3
5	Nov 14	Reverse	Canvas articles	PS 4
		mortgage		



6	Nov 16	Mortgage	Canvas articles	PS 5
		Insurance		
7	Nov 21	Mortgage	BF 8, REFCC 7	PS 6
		Underwriting		
8	Nov 23	Mortgage Backed	BF 19, 20	PS 7
		securities		
9	Nov 28	Pro forma review	BF 11, 18	PS 8
		and partnerships		
10	Nov 30	REITs, funds, and	BF 21, 23	PS 9
		course review		



[Below is an example of citation requirements for generative AI to be used for assignment outlines. It is included here for reference. **Delete this page, including the below, before distributing this syllabus.**]

Citation of Generative AI

Style guides have been updated to include citation of generative artificial intelligence (AI), including the <u>APA Style Guide</u>. Your in-text citation and bibliographic citation of AI should follow the APA Style Guide.

To confirm, in addition to following the APA style guide for in-text and bibliographic citation, please include:

- If you quote, paraphrase or use the full output that was generated by AI (for an example, see <u>here</u>):
 - Any prompt(s) used to generate content
 - As an appendix, the original output (e.g. in the form of a full transcript or chat log) of the AI
- If you use but do not quote or paraphrase the AI (for an example, see <u>here</u>):
 - A general statement in the text as to how you used the AI
 - As an appendix, the original output (e.g. in the form of a full transcript or chat log) of the AI