School of Accounting and Finance
AFM 272: Global Capital Markets and Financial Analytics
Course Syllabus - Fall 2024

Course Instructor:

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Office Hours:	Tuesdays, 1-2pm

Course Description:

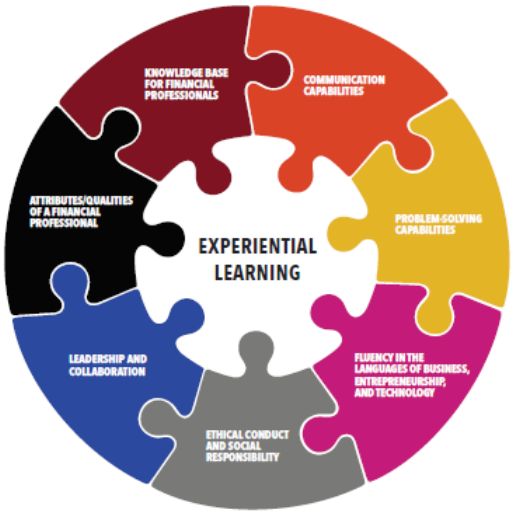
This course offers an overview of global capital markets and asset valuation. Topics may include an overview of financial markets and instruments, time value of money, valuation of financial assets, and financial risk and portfolio management. The course utilizes an analytic and computational approach to the topics, enabling students to develop data management and analysis competencies.

Tentative Lecture Schedule (check with the registrar for the exact schedule):

Section	Days of the week	Time	Location
001	Tuesday & Thursday	8:30am-10am	HH1108
002	Tuesday & Thursday	11:30am-1pm	HH1104

BAFM Program Level Learning Outcomes

Each of the School of Accounting and Finance's Program Level learning outcomes identifies a knowledge, skill or value of a financial professional. These outcomes are organized into seven areas as reflected in the graphic. The puzzle pieces reflect the integration of all areas. All outcomes are developed through experiential learning.



Course Learning Outcomes

This course's learning outcomes map to the Program Level learning outcomes as follows:

Intended Learning Outcomes **By the end of the course you will be able to:**	**Knowledge Base for a Financial Professional**	**Communication Capabilities**	**Problem-Solving Capabilities**	**Fluency in the Languages of Business, Entrepreneurship and Technology**	**Ethical Conduct and Social Responsibility**	**Leadership and Collaboration**	**Attributes / Qualities of a Financial Professional**
Estimate the value of basic contracts such as a variety of perpetuities and annuities, as well as more complex securities such as bonds	X		X	X			X
Apply different models to value equity securities (i.e. ESG)	X		X	X	X		X
Distinguish between systematic and diversifiable risk, and describe the implications of each of them	X		X	X			X
Apply basic mean-variance analysis to calculate expected returns and risk for portfolios of risky securities	X		X	X			X
Apply the capital asset pricing model to estimate expected returns for risky securities	X		X	X			X
Describe the basic properties of derivative securities such as options, forwards, and swaps and analyze some simple financial risk management strategies involving these securities	X		X	X			X
Apply basic methods to value derivative securities	X		X	X			X

Note: All of the learning outcomes will be assessed using a combination of exams, individual assignments, and class contributions. Learning activities associated with each of the learning outcomes include assigned readings from the course text book, reviewing posted slides, doing assigned problems, and providing class contributions.

Course Resources:

- Web page: Access via UW Learn
- Textbook(s): Required textbook: J. Berk, P. DeMarzo and D. Stangeland, Corporate Finance (Fifth Canadian Edition), Pearson Canada, Toronto 2022.
- iClicker
    - https://uwaterloo.ca/learn-help/iclickerreef-polling-students
    - Mobile application can be cheaper

Course Evaluation:

Assessment Method	Date	Percent of Total Grade
Class participation	Throughout term	15%
Python exercises (5)	Throughout term	15% (3% each)
Midterm Exam	Oct 11th, 2024 6:30-8pm	30%
Final Examination	Scheduled by Registrar's Office	40%

Overall Course Evaluation

- There are no other marks available in this course.
- At the end of the term, marks on all components of the course grade will be adjusted so that the course median grade is the same for each of them, and in line with historical norms in the course (unless there is evidence that the class grade should be different from historical norms). Note that this means that the marks for any component could be adjusted either upwards or downwards.
- Some students may obtain a preliminary overall grade in excess of 100 after mark adjustments. If this happens, further adjustments will be required since no marks over 100 can be awarded. In particular, students with preliminary overall grades above 100 will have their marks reduced in a rank-preserving way to marks of at most 100. For consistency, students who have preliminary overall grades in the 90s may find their marks reduced as well (again, in a rank-preserving way), and so on.
- After mark adjustments, students must attain a passing grade on the weighted average of the midterm exam and the final exam in order to pass the course. Students who do not satisfy this criterion will receive a mark of at most 45 in the course.

Class participation

- iClicker
    - The students will be asked to solve questions and submit answers in class.
    - The students' submitted answers will be recorded
- Class contribution
    - Class contributions can be made either verbally in class or online in discussions on Piazza.
    - It is possible to earn negative contribution points. For example, being dispectful to other members of the class (e.g. posting inappropriate content online or speaking inappopriately in class) will result in a lower class contribution grade. Any student who repeatedly acts disrespectfully to other members of the class will receive a grade of zero for class contribution, and will be banned from posting on Piazza.
    - Criteria for good class contribution:
        - The contribution contained a constructive solution to a question raised by someone else
        - The contribution asked a question in a clear and meaningful way (e.g. simply saying something like "I don't understand the solution to Problem 12, please help" will not count: to receive a decent mark, explain what you have tried and show where you ran into difficulty)
        - Online posts that are endorsed by the instructor as being good will receive more weight; etc.

Python exercises (5)

- Python exercise will be posted on dates indicated in "Course Schedule" table below.
- Please refer to tentative course schedule (below) for the due dates.
- Please note that the actual due dates can be shifted slightly.
- Some additional details:
    - Late submission is not accepted
    - Grade appeals for the assignment must be submitted by email to the instructor within one week of the date that the original mark is released. Note that specific reasons must be clearly provided as to why you think your work was evaluated incorrectly. The instructor reserves the right to re-grade the entire assignment and raise or lower the marks that were originally assigned on any question.

2.1) Please submit the Jupyter notebook, nothing else.

2.2) Please run your code before submitting it.

2.3) We were intentionally lenient on Assignment 1 grading. We will be less lenient on grading the Assignment 2, 3, 4, and 5

In general, the total weights on the missing Python assignments due to short term absence will get shifted to the other completed Python assignments.

However, in order to prevent people from abusing the system, this shifting to the other Python assignments will happen only when you completed at least 3 Python assignments out of 5. If you completed only 2 Python assignments or less, the grading on the missing Python assignments due to "short term absence" will get shifted to the grading on the **final**.

Mid-term and Final Examinations:

- All assessments/examinations must be the exclusive work of the individual student.
- Written requests for re-grading a mid-term examination must normally be made within one week after the examination has been returned. A written request must be submitted that indicates your reasons for believing that a question was improperly graded. The instructor reserves the right to re-grade the entire examination.
- The final examination will be two and one-half hours duration and will be scheduled by the Registrar's Office during the Fall 2024 term. **The examination period is from December 6 to December 19. The final examination emergency day is December 20. There are no exams or classes held December 4 to December 5.** The final examination is comprehensive, covering all material delivered throughout the course. Students must pass the weighted average of the midterm and final exam to pass the course
- Faculty of Arts policy provides that students who wish to review their final examination papers informally may do so without instituting a formal appeal procedure. Such review will take place under supervised access only and will be arranged in a way that is mutually convenient for the instructor and the student.

ADDITIONAL COURSE POLICIES:

Submission Times

Please be aware that the University of Waterloo is located in the Eastern Time Zone (GMT or UTC-5 during standard time and UTC-4 during daylight saving time) and, as such, the time for your activities and/or assignments are due is based on this zone. If you are outside of the Eastern Time Zone and require assistance converting your time, please try the Ontario, Canada Time Converter.

Late Submission Policy

No late submission is accepted.

Use of Artificial Intelligence (AI):

Generative artificial intelligence (GenAI) trained using large language models (LLM) or other methods to produce text, images, music, or code, like Chat GPT, DALL-E, or GitHub CoPilot, may be used for assignments in this class with proper documentation, citation, and acknowledgement. Recommendations for how to cite GenAI in student work at the University of Waterloo may be found through the Library: https://subjectguides.uwaterloo.ca/chatgpt_generative_ai. Please be aware that generative AI is known to falsify references to other work and may fabricate facts and inaccurately express ideas. GenAI generates content based on the input of other human authors and may therefore contain inaccuracies or reflect biases.vIn addition, you should be aware that the legal/copyright status of generative AI inputs and outputs is unclear. Exercise caution when using large portions of content from AI sources, especially images. More information is available from the Copyright Advisory Committee: https://uwaterloo.ca/copyright-at-waterloo/teaching/generative-artificial-intelligence

Lasty, you are accountable for the content and accuracy of all work you submit in this class, including any supported by generative AI.

UNIVERSITY OF WATERLOO AND SCHOOL OF ACCOUNTING & FINANCE POLICIES

Details regarding School of Accounting and Finance (SAF) policies and University of Waterloo policies can be found on the SAF LEARN site at My SAF Community. Within Learn, the "SAF My SAF Community Policy document" for the current term can be found under "SAF Course Syllabus - Policies for Students".

These policies are an integral part of this course syllabus. They have been posted on the SAF LEARN site as they are not course specific but are common for all SAF program courses. Please ensure that each term you are informed regarding these policies. They include:

UNIVERSITY POLICIES SCHOOL OF ACCOUNTING AND FINANCE POLICIES

- School of Accounting and Finance Academic Integrity Expectations
- SAF Process for Missed Assessments – also see Declaring Absences under University Statements (below)
- Generative or other Artificial Intelligence (AI) Tools
- Changes to in-class Meeting Schedule and other Covid related Circumstances
- Recording of Lectures
- Attendance at the Registered Section

UNIVERSITY POLICIES

- Academic Integrity
- I-clickers/Electronic Polling Tools
- Grievance
- Discipline
- Appeals
- Accommodation for Students with Disabilities
- Turnitin Policy
- Cross-listed courses

UNIVERSITY STATEMENTS

- Declaring Absences – Ensure you review the three acceptable options to declare an absence. Once an absence is approved, instructors are notified. You are responsible for contacting instructors to discuss accommodation arrangements.
    1. 48 hour short-term absence
    2. Self-declared COVID-related absence
    3. Religious Observance Self-Declaration Form
    4. UW Verification of Illness Form - submitted and accepted

  Full details are provided in the SAF My SAF Community Policy document and Accommodations for illness or extenuating circumstances.
- Absences due to religious, creed, and spiritual observances
- Mental Health Support
- Anti-racism Statement
- Academic freedom at the University of Waterloo
- Intellectual Property
- Territorial Acknowledgement
- pronouns and chosen or preferred first name

Tentative Course Schedule

Module	Date	Topic	Text Reference	Python assignment
1	9.4.2024	Arbitrage	Ch 3	
	9.9.2024		Ch 3	
2	9.11.2024	Time Value of Money	Ch 4	
	9.16.2024		Ch 4	
	9.18.2024		Ch 4	
	9.23.2024		Ch 4	
3	9.25.2024	Interest Rates	Ch 5	
	9.30.2024		Ch 5	
4	10.2.2024	Bond valuation	Ch 6	Assignment 1 posted Python tutorial scheduled from 6-7pm

Module	Date	Topic	Text Reference	Python assignment
	10.7.2024		Ch 6	
5	10.9.2024	Stock valuation	Ch 7	Assignment 1 due Assignment 2 posted
	10.21.2024		Ch 7	
6	10.23.2024	Capital Markets and Risk	Ch 10	Assignment 2 due Assignment 3 posted
7	10.28.2024	Portfolio Theory and the CAPM	Ch 11	
	10.30.2024		Ch 11	Assignment 3 due Assignment 4 posted
	11.4.2024		Ch 11	
	11.6.2024			Assignment 4 due (11.8.2024)
8	11.11.2024	Financial Options	Ch 14	Assignment 5 posted
	11.13.2024		Ch 14	
9	11.18.2024	Option Valuation	Ch 15	
	11.20.2024		Ch 15	
10	11.25.2024	Financial Risk Management	Ch 30	Assignment 5 due
	11.27.2024		Ch 30	
	12.2.2024		Ch 30	
	12.2.2024	Course review		