

### COURSE INFORMATION

Course title:	<b>Topics in Investment Management</b>		
Course code:	<b>BAFI 519</b>	Credits:	1.5
Session, term, period:	2023 W1 P7 (Oct-Dec)	Class location:	HA 437
Section(s):	001	Class times:	MW 10:00-12:00
Division:	Finance	Pre-requisites:	
Program:	MBA		

### INSTRUCTOR INFORMATION

Instructor:	Adjunct Professor Bill Tilford	Office Location:	HA862 and Online
Phone:	647-980-9147	Office hours:	W 3:30-4:30pm & Online upon request
Email:	bill.tilford@sauder.ubc.ca		

### COURSE DESCRIPTION

This course investigates current topics at the frontiers of investment management, including real-world examples, implementation of potential investment and trading strategies, and investigating new innovations and technologies. Topics covered will vary according to interests of the students and instructor and with new developments in the field of investment management.

### COURSE FORMAT

Classes consist primarily of lectures and discussions in which students are expected to participate. Students are also expected to work through applied problems both in and outside of class, keep a daily journal of independent learning and course participation throughout the course, and complete a project involving finance research and analysis. This class is intended to be live in-person and students are expected to attend live and in person; however it is possible the class may move to online at some point if university rules dictate for health or other reasons (if a move to online occurs, a Zoom link will be provided to students via Canvas notification or similar means).

### LEARNING OBJECTIVES

The main goal of the course is to study current topics and research findings, at the frontiers of investment management, that have not been fully covered elsewhere in the finance curriculum. Primary resources and methods will be the study of working papers, industry papers and journal articles that develop new ideas, consideration of real-world examples and practitioner experience, and student-led implementation of potential investment and trading strategies. During this course we will also introduce the programming language Python (which is a powerful and increasingly important, as well as free and open-source, tool used in the finance industry. Note no prior programming experience required), and will develop skills in acquiring current market data and carrying out empirical analyses using Bloomberg, Python and Excel.

### ASSESSMENTS

Assignment 1	10%
Assignment 2	15%
Assignment 3	15%
Participation	15%
Term Project	45%
<b>Total</b>	<b>100%</b>

### LEARNING MATERIALS

Primary course materials (lecture notes, sample data, sample programs) will be available on Canvas.

### Optional Additional Learning Resources – NOT REQUIRED but may be useful for some students:

*Active Portfolio Management, 2<sup>nd</sup> Edition* by Richard Grinold and Ronald Kahn. McGraw-Hill 2000

*Asset Management: A systematic Approach to Factor Investing* by Andrew Ang. Oxford University Press 2014

### NO DISTRIBUTION OF RECORDINGS

There is no distribution of recordings of class and classes will not be live-streamed or recorded. Classes are designed as, and are intended to be, in-person. Your attendance is expected. If you are unable to attend, the policies regarding academic concessions and attendance described in this syllabus apply. It is your responsibility to ensure that you have the materials you need for missed classes. It is strongly recommended that you make arrangements at the start of the semester for materials in case you miss class. For instance, you may wish to exchange contact information with a classmate who can provide you with notes in the event you miss class. If you believe you are an exceptional case that merits special consideration, please promptly reach out to RHL Sauder to advise them of your circumstances and then work with RHL to contact the instructor.

### ACADEMIC CONCESSIONS AND ACCOMODATIONS

#### *Academic Concessions*

If extenuating circumstances arise, including those that result in missed classes or assignments or other deliverables, 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](#).

#### *Missed or late assignments, and regrading of assessments*

Late submissions, or missed exams/quizzes, will receive a grade of zero unless academic concession is granted as explained herein. Requests for regrades must be submitted in writing, within 24 hours of the initial grade being posted, specifying in detail the believed grading error – if a regrade is granted the entire assignment/quiz will be regraded and the grade may rise, fall or remain unchanged as a result.

#### *COVID-19 Considerations*

All students must assess themselves daily for COVID-19 symptoms prior to coming to class. Please stay home if you exhibit symptoms or have tested positive for COVID-19. A list of COVID-19 symptoms can be found [here](#). Use the BC Ministry of Health's [self-assessment tool](#), to help determine whether further assessment or testing for COVID-19 is recommended. Full UBC COVID-19 Campus Rules can be found [here](#).

#### *Centre for Accessibility*

The [Centre for Accessibility](#) (CfA) facilitates disability-related accommodations and programming initiatives designed to remove barriers for students with disabilities and ongoing medical conditions. If you are registered with the CfA and are eligible for accommodations, it is your responsibility to coordinate with the CfA, RHL and instructor.

## 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>.

### *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 status as a First Nation, Metis, Inuit, or Indigenous person, 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.

*Respectfulness in the classroom*

Students are expected to be respectful of their colleagues at all times, including faculty, staff and peers. This means being attentive and conscious of words and actions and their impact on others, listening to people with an open mind, treating all UBC Sauder community members equally and understanding diversity. Students who act disrespectfully toward others will be asked to leave the class and be marked as absent for the day. They may also be removed from a team, lose credit for in-class assessments and activities, or be asked to complete a group assignment individually.

*Use of Artificial Intelligence*





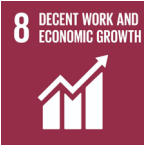

**Generative AI Permitted Where Specified With Attribution**







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.

**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 [United Nations Sustainable Development Goals](#). In this course, we will touch on topics that relate to many of the following goals as we discuss ESG (Environmental, Social, and Governance) issues for companies and portfolios:

<p><b>Goal 1: No Poverty</b></p> 	<p><b><i>End poverty in all its forms everywhere</i></b></p> <p><b>Global Examples:</b> access to basic goods and services, financial security, poverty elimination, income poverty, social services, poverty elimination, homelessness, thriving wage, skills training, income support, charitable donations</p>
<p><b>Goal 2: Zero Hunger:</b></p> 	<p><b><i>End hunger, achieve food security and improved nutrition and promote sustainable agriculture</i></b></p> <p><b>Global Examples:</b> food security, malnutrition, equitable land access, healthy food, child obesity, regional food systems, farmer livelihoods, international food trade, urban agriculture, food waste, food byproducts use, food procurement, retail and distribution, food supply chains, circular food economy</p>
<p><b>Goal 3: Good Health and Well-being</b></p> 	<p><b><i>Ensure healthy lives and promote well-being for all at all ages</i></b></p> <p><b>Global Examples:</b> disease prevention and response, addiction prevention and treatment, healthcare access, reproductive health, medication, mental health, aging, physical activity, quality of life, public health, workplace health and safety, health equity, pandemic response consumer, well-being, employee well-being, negative effects of advertising/consumption, health care optimization</p>

<p><b>Goal 4: Quality Education</b></p> 	<p><b><i>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</i></b></p> <p><b>Global Examples:</b> eliminating disparities in access to education, skill development, literacy and numeracy, equity in education, Indigenous education, responsible management topics, quality university education, safe, inclusive, and effective learning environments, financial literacy, climate literacy, life-long learning</p>
<p><b>Goal 5: Gender Equality</b></p> 	<p><b><i>Achieve gender equality and empower all women and girls</i></b></p> <p><b>Global Examples:</b> women’s rights and safety, violence against women, unpaid/domestic work recognition and support, women leadership and ownership, gender pay gap, non-binary gender rights, gender equity, women in entrepreneurship, LGBTQIA+ issues, employment and pay equity, diverse leadership, reproductive health, gender pay gap, gender disparities in promotions</p>
<p><b>Goal 6: Clean Water and Sanitation</b></p> 	<p><b><i>Ensure availability and sustainable management of water and sanitation for all</i></b></p> <p><b>Global Examples:</b> access to clean drinking water, adequate waste water treatment, integrated water resources management, water reuse and recycling, watersheds, rivers, streams, ground water, water treatment, conservation</p>
<p><b>Goal 7: Affordable and Clean Energy</b></p> 	<p><b><i>Ensure access to affordable, reliable, sustainable and modern energy for all</i></b></p> <p><b>Global Examples:</b> access to clean energy, energy efficiency, energy policy, renewable energy, affordable clean energy, energy infrastructure upgrades, energy conservation, fossil fuel divestment, energy efficient buildings, renewable energy, community energy infrastructure</p>
<p><b>Goal 8: Decent Work and Economic Growth</b></p> 	<p><b><i>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</i></b></p> <p><b>Global Examples:</b> economic diversification, small and medium businesses, fair trade, access to financial services, decent job creation, entrepreneurship, creativity and innovation, meaningful work, employment equity, income equity, labour rights, micro-finance, social finance, safe &amp; inclusive workspace, alternatives to never-ending growth</p>
<p><b>Goal 9: Industry, Innovation and Infrastructure</b></p> 	<p><b><i>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</i></b></p> <p><b>Global Examples:</b> resilient infrastructure, inclusive and sustainable industrialization, innovation, access to transportation, micro-finance, access to credit, small-scale industry support, research and technology, entrepreneurship, access to technology, social enterprise</p>

<p><b>Goal 10: Reduce Inequality</b></p> 	<p><b><i>Reduce inequality within and among countries</i></b></p> <p>Global Examples: income equality, income support, inclusive employment policies, anti-racism, anti-discrimination, Indigenous reconciliation, disability, religion, race, equity, diversity and inclusion, wealth inequality, bias in AI, price discrimination, discrimination in segmentation, Indigenous inclusion, Indigenous participation</p>
<p><b>Goal 11: Sustainable Cities and Communities</b></p> 	<p><b><i>Make cities and human settlements inclusive, safe, resilient and sustainable</i></b></p> <p>Global Examples: transportation access, road safety, cultural/natural heritage, safe and affordable housing, urban planning, air quality, inclusive/safe/healthy public spaces, urban containment, urban governance, sustainable land use, effects of climate change on cities, valuing risk, sustainable transportation</p>
<p><b>Goal 12: Responsible Consumption and Production</b></p> 	<p><b><i>Ensure sustainable consumption and production patterns</i></b></p> <p><b>Global Examples:</b> sustainable and equitable sourcing and production, sustainable procurement, sustainable distribution, food waste, life cycle analysis, recycling and reuse, ecological footprint, corporate social responsibility, fair trade, circular economy, consumer well-being, responsible sourcing, low emission supply chain design, responsible/ethical supply chain</p>
<p><b>Goal 13: Climate Action</b></p> 	<p><b><i>Take urgent action to combat climate change and its impacts</i></b></p> <p><b>Global Examples:</b> natural disaster response, climate change mitigation, climate change adaptation, climate justice, climate policy, resilience, environmental externalities, low emission supply chain design, Environmental Disclosure, ESG accounting and reporting, Cap and Trade, Carbon Markets, Carbon Pricing;</p>
<p><b>Goal 14: Life Below Water</b></p> 	<p><b><i>Conserve and sustainably use the oceans, seas and marine resources for sustainable development</i></b></p> <p><b>Global Examples:</b> fishing and fisheries, ocean and freshwater pollution, coastal laws and water regulation, water conservation, aquatic ecosystem health</p>
<p><b>Goal 15: Life On Land</b></p> 	<p><b><i>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</i></b></p> <p><b>Global Examples:</b> forests, wetlands, mountain and alpine ecosystems, sensitive ecosystems, biodiversity, soil health, endangered species, invasive species</p>

<p><b>Goal 16: Peace, Justice, and Strong Institutions</b></p> 	<p><b><i>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</i></b></p> <p><b>Global Examples:</b> violence, corruption, government spending, public engagement, equity, advocacy, governance, leadership, laws and regulations, civic engagement, policy, accountable and transparent institutions, ethical institutions, responsive and inclusive decision making, ESG, data usage and transparency, transparency in financial reporting, environmental disclosure, codes of ethics</p>
<p><b>Goal 17: Partnerships for the goals</b></p> 	<p><b><i>Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development</i></b></p> <p><b>Global Examples:</b> international cooperation, trade, taxes, access to technology, data collection and sharing, cross-sector collaboration, cooperation, collaboration, partnerships, collective action, interdisciplinary</p>

*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; nor should you help others to do the same. For example, it is prohibited to: share past assignments and answers with other students; work with other students on an assignment when an instructor has not expressly given permission; or spread information through word of mouth, social media, or other channels that subverts the fair evaluation of a class exercise, or assessment. 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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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. All lecture recordings are for the sole use of the instructor and students enrolled in the class. In no case may lecture recordings, or part of the recordings, 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. Students may not share class Canvas or Zoom links or invite others who are not registered to view sessions or access material.

**ACKNOWLEDGEMENT**

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

**ONLINE TEACHING TOOL & REQUIREMENTS**

This course may be taught using Zoom for some office hours, and potentially some classes if the Health Officer or UBC so determines. For this course, you are required to use a Zoom account during such times. If you do not have a Zoom account, you can create one here: <https://zoom.us/signup>. Note: creating a Zoom account requires that you provide a first name, last name, and email address to Zoom. For privacy purposes, you may consent to using your existing email address and your real name. Alternatively, if you prefer, you may sign up using an alternative email address and an anonymized name that does not identify you (i.e. Jane Doe, [jane.doe@email.com](mailto:jane.doe@email.com)). If you have trouble creating an account, or accessing a Zoom session, please contact [CLCHelp@sauder.ubc.ca](mailto:CLCHelp@sauder.ubc.ca). You will be required to provide the email address associated with your Zoom account in a Canvas quiz for identification purposes. Students are expected to conduct themselves professionally by joining online sessions on time, muting mics when not speaking, refraining from using any other technology when in-session, attending in business casual attire (at a minimum), and participating from a quiet environment.

**== class schedule follows ==**

**COURSE SCHEDULE (SUBJECT TO CHANGE)**

Class	Topics	Assessments
Class 1 Oct 30	introduction to course content, Bloomberg tutorial, build a portfolio	
Class 2 Nov 1	Review CAPM and Multifactor models Introduction to Style and Thematic Investing, Factors	
Class 3 Nov 6	How to construct factors Portfolio level factor exposures and risks	
Class 4 Nov 8	Value, Growth, Momentum & Behaviour Finance Thematic and Macro factors	Assignment due 11:59pm Nov 13
Class 5 Nov 13	Overview of Portfolio Construction methods Python tutorial	
Class 6 Nov 15	Portfolio methods: Fama-French, Black-Litterman ESG – Environmental, Social and Governance Investing	Assignment due 11:59pm Nov 20
Class 7 Nov 20	ESG, carbon portfolio exposures and risks Asset Mix Construction	
Class 8 Nov 22	Crypto Currencies as an asset class Risk Management	
Class 9 Nov 27	Uses of Value at Risk and other risk metrics Machine Learning in Financial Markets	Assignment due 11:59pm Nov 29
Class 10 Nov 29	Natural Language Processing of news, social media wrap-up	
Other	Participation – throughout course final project – end of course, due date TBD	see Canvas for details