INSTRUCTOR

Name: Alex Paseka
Office: Zoom (see UMLearn for the link)
Email: Alex.Paseka@umanitoba.ca
Office hours: Mondays/Wednesdays, 17:00 pm - 18:30 pm

COURSE DESCRIPTION

An introduction to investment analysis and modern portfolio theory. Topics include equilibrium in the capital markets, fixed income securities, equities and derivative instruments.

CONTENTS

CONTENTS ............................................................. 1
ATTENDANCE POLICY ..................................................... 6
INSTRUCTOR ............................................................. 1
ELECTRONIC DEVICE POLICY ............................................. 6
COURSE DESCRIPTION ..................................................... 1
OUT-OF-CLASS COMMUNICATION ............................................. 6
COURSE OBJECTIVES ..................................................... 2
IMPORTANT DATES .......................................................... 7
COURSE FORMAT AND ONLINE ACCESS ..................... 2
CLASS SCHEDULE ............................................................ 7-8
COURSE MATERIALS ..................................................... 3-4
INTENDED LEARNING OUTCOMES ....................................... 8
ASSESSMENT OF LEARNING ............................................. 4-6
ACADEMIC INTEGRITY POLICY .......................................... 9-11
MISSED EXAM AND LATE SUBMISSION POLICY ............. 6
STUDENT SERVICES AND SUPPORTS ........................ 12
COURSE OBJECTIVES

The objective of this course is to familiarize you with the investment process and portfolio management from both a theoretical and a practical perspective (acquired through laboratory session and a group project). At the end of the course, you should have a reasonable appreciation of the available investment instruments and their applications.

Starting from the assumption that the best learning is accomplished "by doing" and by applying concepts discussed in class you will be expected to carry out a "hands-on" project during the term. To this end, you will participate in a laboratory session and complete a project.

By the end of the course, students should have a good understanding of objectives and techniques of the investment process and, more specifically, the following concepts:

• Capital and Money Market Instruments, How Securities are Traded (including Buying on Margin and Selling Short)
• Risk Aversion and Introduction to MPT (expected return and variance computation for an individual asset, correlation and covariance, expected return and variance of a portfolio, mean-variance dominance, utility function, indifference curves, global minimum variance portfolio, CAL, optimal risky portfolio)
• Bonds (Valuation, Duration, Immunization, and Portfolio Management)
• Estimating the Markowitz Frontier and the Capital Market Line (CML)
• The Capital Asset Pricing Model (CAPM)
• Index models, APT
• Options (payoffs, profits, returns, strategies such as protective put, covered call, long straddle, and bull spread), Put-Call Parity
• Lower and Upper Bounds on Option Values
• Binomial Option Pricing (for European and American Options), Option Deltas ⎯ Black-Scholes Option Valuation

COURSE FORMAT AND ONLINE ACCESS

This course will be conducted “live” via videoconferencing using Zoom and will not involve in-person instruction. Classes will be held during the scheduled class time.

To join a session, you will just need to follow the link that I will supply in advance of the term. The link will be good for the entire term. To get admitted to any of scheduled Zoom session, you will need to login with a password to be provided to all registered students.

For recording attendance and class participation, you will be expected to have your camera and microphone on during class time and exams. You are expected to leave your camera on for the duration of the class. Have your microphone muted and unmute yourself only when you speak.
Please note that all classes will be recorded and the video recordings are likely to be shared with other students.

**COURSE MATERIALS**

1. As classes will be delivered synchronously via videoconferencing, a device enabled with a camera and microphone is required. Further, you are expected to be in a location with a reliable Internet connection that is strong enough for streaming video.

   For exams, which will be administered via the Respondus Lockdown browser and monitored via the Respondus Monitor, you will need a device (computer or iPad; smartphone will not work) with one of the following operating systems:
   - Windows 10, 8, or 7 (note: will not work with Windows 10S)
   - Mac OS 10.15 to 10.12, OS X 10.11, or OSX 10.10 iOS: 11.0+ (iPad only)
   
   You will need the Chrome browser. Other browsers such as Safari may not work.


   If you prefer an eText, then you can get access to the textbook’s companion CONNECT website, which will give you access to the eText and other online learning tools. Listed below are your eText options and details of access to CONNECT:

**STUDENT REGISTRATION INSTRUCTIONS**

1. Go to the Connect course URL: [https://connect.mheducation.com/class/a-paseka-winter-2021](https://connect.mheducation.com/class/a-paseka-winter-2021)

2. Enter your school email address and complete the brief online registration form that follows.

3. You have three registration options:
   
   - Connect Code: Enter your Connect access code and click REDEEM.
   - Purchase Online: Click BUY IT to use a credit card or PayPal.
   - Temporary Access: Click ACCESS NOW for FREE, two-week access.

Have questions or need help? Call 1-800-331-5094 or visit: [https://mhedu.force.com/CXG/s/ContactUs](https://mhedu.force.com/CXG/s/ContactUs)

Please respect copyright laws. Photocopying textbooks or other reading material is a violation of copyright laws and is unethical, unless permission to copy has been obtained.

3. Class notes - Students are required to bring a copy of PPT notes to class. It is very difficult to follow the lecture without these notes. The notes are available on UMLearn.
4. **END-OF-CHAPTER PROBLEMS (optional but highly recommended)** - You will receive a list of suggested end-of-chapter problems from the required text soon after the first class. I strongly recommend that you master these problems. Solutions will be posted on UMLearn.

5. This course will incorporate an in-class computer lab session. The outline lists the tentative dates for the session. The session is designed to implement financial models studied in this course using Excel. See important information below regarding attendance during the lab session.

   Students are required to attend the online lab session using the Zoom link for regular classes. As such, students are required to have a laptop or a desktop computer ready with Microsoft Excel at home (or Office 365 tools). It is important that you go to ‘Data’ tab and make sure that ‘Data Analysis’ and ‘Solver’ tools are installed. If not, go to File -> Options -> Add-ins and install these tools.

**ASSESSMENT OF LEARNING**

Grades will be assigned according to the following schedule:

<table>
<thead>
<tr>
<th>Maximum Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Challenge</td>
<td>5%</td>
</tr>
<tr>
<td>BMC</td>
<td>5%</td>
</tr>
<tr>
<td>Term Project</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Students must achieve at least a 60% grade on the term project in order to pass the course. A fixed percentage grading scale is not used in this course. **Final grades are based on the student’s weighted mark and performance relative to the other students.**

**Lab Sessions**

This course will incorporate two or three computer lab sessions. The outline lists the tentative dates for the sessions. The session is designed to implement financial models acquired in this course using Excel. See important information below regarding attendance during the lab sessions.

**Term Project**

A group project will be posted on UMLearn at least a week before the first lab session. The project must be completed in groups of **minimum four and maximum five students.**
Late projects will not be accepted. All projects must be typed (double-spaced, font size 12) with references to relevant tables, figures, or notes. Handwritten projects will not be accepted under any circumstances. More details to follow on UMLearn.

**Exams**

The midterm exam will take place on Tuesday, March 16th (7:00 – 9:00 pm; on UMlearn). No makeup exam for the midterm will be given.

Both midterm and final exams will be open book exams. You may use a financial calculator. Note: the final exam is **cumulative**.

To protect the academic integrity of education at the Asper School, certain protocols will be observed for online exams. For instance, a small subset of questions will appear on a screen and you may not have the option to move back to questions you have already seen.

For exams, we will be using the university-approved Respondus Monitor, which will require you to have your camera and microphone on for the entire duration of the exam. As the software detects any unusual movements, please sit in a location where there are no people/pets or other moving objects in the camera’s view during the exam.

**BLOOMBERG MARKET CONCEPTS (BMC)**

The Bloomberg Terminal will be used in this class. In order for you to get familiarized with it, I am expecting you to complete three sections of the self-paced course Bloomberg Market Concepts (BMC). BMC will expose you to some of the most frequently used Bloomberg Terminal commands.

BMC consists of three sections-Core Concepts (includes four modules: Economic Indicators, Currencies, Fixed Income, and Equities), Getting Started on the Terminal, and Portfolio Management. You are required to complete the Core Concepts and Getting Started on the Terminal, and Portfolio Management sections for this class.

To sign up for BMC, please follow the steps outlined in the appropriate document available on UMLearn. To participate in BMC you will need our Class Code:

**GROUP CODE: RVMFH84YXZ**

There are multiple quiz questions and case studies throughout the course to assess your understanding of the material. Please note that I will receive a report with details of your performance on all required components. **The deadline for completion of the BMC course is midnight March 12.**
INVESTMENT CHALLENGE

In this class we will be partnering with EquitySim, a technology start-up company that develops a financial market simulation that teaches investment principles in a hands-on way. You’ll be participating in EquitySim’s Investment Challenge. There is a 5% participation grade tied to your engagement on the platform.

What is the Investment Challenge? Open to anyone from any field of study, complete tasks while you learn how to manage a $1M investment portfolio. The money is fake, but the investments are real, you’ll need to keep up with current events while you choose which investment to trade. Additional details are provided in a separate file (please check UM Learn). Join the challenge here (website link):

finance.equitysim.com/join/class/xxxxxxxxxxxx (to be supplied later)

MISSED EXAM AND LATE SUBMISSION POLICY

A student who misses the midterm exam for a legitimate reason (e.g., illness) will have the weight of the midterm added to the final exam.

If a student misses the final exam, they have to apply for a deferred exam as in any other term. The application has to be made with the student’s home Faculty. If the student is not an Asper student, they have to contact their home Faculty. If the student is an Asper student, they have to email “b_comm@umanitoba.ca” providing the following information:

- Name
- Student number
- Course name and course number of the final exam missed
- Reason for deferral (medical or a different reason)

ATTENDANCE POLICY

Class attendance is important if students are to derive maximum benefit from the course. It is important that you read the assigned material prior to the class and think about the issues covered. You are responsible for knowing what occurs in class which may include material not covered in the readings, modifications to the syllabus and announcements concerning exams.

Important: The Group Project is based on lab material. The only way you can do the Group Project and contribute to your group is if you attend this lab. Therefore, attendance in all parts of the Lab is mandatory. Students failing to attend parts of the lab will receive a grade equal to 75% of their group’s term project grade (use your real name on Zoom to avoid problems). For recording your lab attendance, the instructor may require you to have your camera and/or microphone on when you speak or for the entire duration of the lab.
ELECTRONIC DEVICE POLICY

You may use a laptop or a tablet for note-taking. Note: you are not allowed to audio/video record any lectures.

OUT-OF-CLASS COMMUNICATION

We will use UM Learn as a portal for distributing the course outline, class handouts, grades, etc. Students must use their University of Manitoba email account in all correspondence with me. Please include your full name and student number in every email. It is a university policy that email communication between students and faculty is conducted solely via University of Manitoba email accounts.

IMPORTANT DATES

- Midterm exam: Mar 16 (7:00 – 9:00 pm; location: UMLearn)
- Project is due: April 14 before midnight
- Final Exam: TBA

CLASS SCHEDULE

<table>
<thead>
<tr>
<th>Topic</th>
<th>Date</th>
<th>Chapter</th>
<th>Reminder Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Recent History of Investing and the</td>
<td>Jan 18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Investment Objective</td>
<td>Jan 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Financial Markets and Instruments</td>
<td>Jan 25</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jan 27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How Securities are Traded</td>
<td>Feb 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Fixed Income Securities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Bonds – Valuation</td>
<td>Feb 3</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>5. Bonds – Duration and Portfolio</td>
<td>Feb 8</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>Feb 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 15</td>
<td>No class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Louis Riel Day)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Modern Portfolio Theory (MPT)

6. Risk Aversion and Introduction to MPT
   Feb 22 - Mar 3 (4 classes)
   5.5, 5.6, 5.8, 6, 7.17.4

LAB

Estimating the Markowitz Frontier and the Capital Market Line (CML)
   Mar 8-10
   Must be present with a laptop, Excel, and required add-ins

<table>
<thead>
<tr>
<th>Mid-Term Exam</th>
<th>Tuesday, Mar 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time: 7:00 – 9:00 p.m.</td>
<td>Location: Online</td>
</tr>
</tbody>
</table>

Asset-Pricing Models

7. The Capital Asset Pricing Model
   Mar 15
   9.1, 13.1

8. Factor Models
   Mar 17
   8.1-8.3, 8.4 (pp 285-287, 280), 10.5

9. APT
   Mar 22
   10

Equity Derivatives

10. Options – Introduction
    Mar 24
    2.5, 20.1–20.2

11. Option Strategies and Payoffs
    Mar 29
    20.3–20.4

12. Option Pricing Models
    Mar 31 – Apr 14
    21.1–21.5

Project is due
   Apr 14
   By midnight

Final Exam
   Time: TBD
   Date: TBD
   Location: Online
INTENDED LEARNING OUTCOMES

AACSB Assurance of Learning Goals and Objectives
The Asper School of Business is proudly accredited by AACSB. Accreditation requires a process of continuous improvement of the School and our students. Part of “student improvement” is ensuring that students graduate with the knowledge and skills they need to succeed in their careers. To do so, the Asper School has set the learning goals and objectives listed below for the Undergraduate Program. The checked goal(s) and objective(s) will be addressed in this course and done so by means of the items listed next to the checkmark.

<table>
<thead>
<tr>
<th>Goals and Objectives in the Undergraduate Program</th>
<th>Goals and Objectives Addressed in this Course</th>
<th>Course Item(s) Relevant to these Goals and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1       Quantitative Reasoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Determine which quantitative analysis technique is appropriate for solving a specific problem.</td>
<td>✓</td>
<td>Entire Course</td>
</tr>
<tr>
<td>B. Use the appropriate quantitative method in a technically correct way to solve a business problem.</td>
<td>✓</td>
<td>Entire Course</td>
</tr>
<tr>
<td>C. Analyze quantitative output and arrive at a conclusion.</td>
<td>✓</td>
<td>Entire Course</td>
</tr>
<tr>
<td>2       Written Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Use correct English grammar and mechanics in their written work.</td>
<td>✓</td>
<td>Term project</td>
</tr>
<tr>
<td>B. Communicate in a coherent and logical manner</td>
<td>✓</td>
<td>Term project</td>
</tr>
<tr>
<td>C. Present ideas in a clear and organized fashion.</td>
<td>✓</td>
<td>Term project</td>
</tr>
<tr>
<td>3       Ethical Thinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Identify ethical issues in a problem or case situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Identify the stakeholders in the situation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Analyze the consequences of alternatives from an ethical standpoint.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Discuss the ethical implications of the decision.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4       Core Business Knowledge</td>
<td>✓</td>
<td>Entire Course</td>
</tr>
</tbody>
</table>
ACADEMIC INTEGRITY POLICY

It is critical to the reputation of the Asper School of Business and of our degrees that everyone associated with our faculty behave with the highest academic integrity. As the faculty that helps create business and government leaders, we have a special obligation to ensure that our ethical standards are beyond reproach. Any dishonesty in our academic transactions violates this trust. The University of Manitoba General Calendar addresses the issue of academic dishonesty under the heading “Plagiarism and Cheating.” Specifically, acts of academic dishonesty include, but are not limited to:

- using the exact words of a published or unpublished author without quotation marks and without referencing the source of these words
- duplicating a table, graph or diagram, in whole or in part, without referencing the source
- paraphrasing the conceptual framework, research design, interpretation, or any other ideas of another person, whether written or verbal (e.g., personal communications, ideas from a verbal presentation) without referencing the source
- copying the answers of another student in any test, examination, or take-home assignment
- recording exam questions using any method, regardless of whether those are shared with others
- sharing exam questions with those who are yet to take the exam, including future students or attempting to sell exam questions
- providing answers to another student in any test, examination, or take-home assignment
- taking any unauthorized materials into an examination or term test (crib notes)
- impersonating another student or allowing another person to impersonate oneself for the purpose of attendance, earning class participation marks, submitting academic work, or writing any test or examination
- stealing or mutilating library materials
- accessing test prior to the time and date of the sitting
- changing name or answer(s) on a test after that test has been graded and returned
- submitting the same paper or portions thereof for more than one assignment, without discussions with the instructors involved

Group Projects and Group Work

Many courses in the Asper School of Business require group projects. Students should be aware that group projects are subject to the same rules regarding academic integrity. All group members should exercise special care to ensure that the group project does not violate the policy on Academic Integrity. Should a violation occur, group members are jointly accountable unless the violation can be attributed to specific individuals.

Some courses, while not requiring group projects, encourage students to work together in groups before submitting individual assignments. If it’s unclear whether it is allowed, students are encouraged to seek clarification from the instructor to avoid violating the academic integrity policy.

In the Asper School of Business, all suspected cases of academic dishonesty in undergraduate courses are reported to the Dean’s office and follow the approved disciplinary process. See following table for typical penalties for academic dishonesty in the Asper School.
**Typical Penalties for Academic Dishonesty in the Asper School**

If the student is from another Faculty and the academic dishonesty is committed in an Asper course, the student’s Faculty could match or add penalties beyond the Asper School’s.

F-DISC on transcript indicates the F is for disciplinary reasons.

<table>
<thead>
<tr>
<th>ACADEMIC DISHONESTY</th>
<th>PENALTY</th>
</tr>
</thead>
</table>
| Cheating on exam (copying from or providing answers to another student) | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Sharing exam questions electronically during exam                 | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Possession of unauthorized material during exam (e.g., cheat notes) | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Altering answer on returned exam and asking for re-grading        | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Plagiarism on assignment                                          | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Submitting paper bought online                                    | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Inappropriate Collaboration (collaborating with individuals not explicitly authorized by instructor) | F-DISC in course  
Suspension from taking Asper courses for 1 year  
Notation of academic dishonesty in transcript |
| Group member had knowledge of inappropriate collaboration or plagiarism and played along | F-DISC in course  
Notation of academic dishonesty in transcript |
| Signing Attendance Sheet for classmate                            | F-DISC in course  
Notation of academic dishonesty in transcript |
STUDENT SERVICES AND SUPPORTS

The University of Manitoba provides many different services that can enhance learning and provide support for a variety of academic and personal concerns. You are encouraged to visit the below websites to learn more about these services and supports. If you have any questions or concerns, please do not hesitate to contact your instructor or the Undergraduate Program Office.

<table>
<thead>
<tr>
<th>For Information on...</th>
<th>...follow this link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech-related issues with UM Learn or videoconferencing</td>
<td>Information Services &amp; Technology</td>
</tr>
<tr>
<td>Admission, Registration, Tuition Fees, Important Dates, Final Exams, Graduation, and Transcripts</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>Academic policies &amp; procedures, regulations, Faculty-specific information, degree and major requirements</td>
<td>Academic Calendar</td>
</tr>
<tr>
<td>Help with research needs such as books, journals, sources of data, how to cite, and writing</td>
<td>Library Resources</td>
</tr>
<tr>
<td>Tutors, workshops, and resources to help you improve your learning, writing, time management, and test-taking skills</td>
<td>Writing and Learning Support</td>
</tr>
<tr>
<td>Support and advocacy for students with disabilities to help them in their academic work and progress</td>
<td>Student Accessibility Services</td>
</tr>
<tr>
<td>Copyright-related questions and resources to help you avoid plagiarism or intellectual property violations</td>
<td>Copyright Office</td>
</tr>
<tr>
<td>Student discipline bylaws, policies and procedures on academic integrity and misconduct, appeal procedures</td>
<td>Academic Integrity</td>
</tr>
<tr>
<td>Policies &amp; procedures with respect to student discipline or misconduct, including academic integrity violations</td>
<td>Student Discipline</td>
</tr>
<tr>
<td>Students’ rights &amp; responsibilities, policies &amp; procedures, and support services for academic or discipline concerns</td>
<td>Student Advocacy</td>
</tr>
<tr>
<td>Your rights and responsibilities as a student, in both academic and non-academic contexts</td>
<td>Your rights and responsibilities</td>
</tr>
<tr>
<td>Full range of medical services for any physical or mental health issues</td>
<td>University Health Service</td>
</tr>
<tr>
<td>Information on health topics, including physical/mental health, alcohol/substance use harms, and sexual assault</td>
<td>Health and Wellness</td>
</tr>
<tr>
<td>Any aspect of mental health, including anxiety, stress, depression, help with relationships or other life concerns, crisis services, and counselling.</td>
<td>Student Counselling Centre</td>
</tr>
<tr>
<td>Support services available for help regarding any aspect of student and campus life, especially safety issues</td>
<td>Student Support Case Management</td>
</tr>
<tr>
<td>Resources available on campus, for environmental, mental, physical, socio-cultural, and spiritual well-being</td>
<td>Live Well @ UofM</td>
</tr>
<tr>
<td>Help with any concerns of harassment, discrimination, or sexual assault</td>
<td>Respectful Work and Learning Environment</td>
</tr>
<tr>
<td>Concerns involving violence or threats, protocols for reporting, and how the university addresses them</td>
<td>Violent or Threatening Behaviour</td>
</tr>
</tbody>
</table>