

Investments - Fin 560 - Spring 2020
Professor Christopher Hrdlicka
Syllabus

Revised March 25, 2020

Course Details

Classroom: Zoom
Class time: Monday and Wednesday
Section A/B 1:30 pm to 3:20 pm
Course website: Canvas

Instructor Contact Information

Instructor: Christopher Hrdlicka
Email: hrdlicka@uw.edu
Office: Zoom
Phone: Email me to set up Zoom call
Office hours: Monday 3:30 pm to 5 pm
Or by appointment.
I want to see you in my office hours when you first feel confused.
Website: <http://faculty.washington.edu/hrdlicka/>

TA Contact Information

Instructor: Nathan Fernig
Email: nfernig@uw.edu
Office: Zoom
Office hours: Thursday 4:30 to 5:30 pm
Review session: Thursday 6 pm to 8 pm.
For location and topics see schedule at end of syllabus

Outside of office hours feel free to contact either the TA or myself via email about general questions about the course or material. Please direct all grading or grade related questions to me.

Adjustments for Spring 2020

This quarter we face the unfortune and sad situation of Covid-19. We will all have to do our best to work together to support one another to create the best learning experience possible under these difficult circumstances. The following may change as the situation evolves. Nevertheless, here is the plan. The details in this section override the standard course procedures if they are invoked. I will keep you updated as the quarter progresses.

Online/recorded classes: All classes will meet online via Zoom and will be recorded for students who cannot make the live class due to illness. You will need to find a place where you can participate in class with both your microphone and video active. Consider investing in a pair of headphones with microphone if you only have access to shared spaces. Video and audio capability is necessary for you to actively participate in class, e.g., ask questions, answer questions when called upon, and will be critical when we have case discussions. It is important for me to be able to see you. Seeing you helps me have a rough gauge of your understanding and pace the course appropriately. Though course will be recorded I strongly encourage you to attend the live session for yours and your classmates benefit. See the course webpage for all the relevant links to the Zoom sessions. Links to the recordings will be posted to Canvas as soon as is feasible.

Office hours and review sessions: All my office hours and the TA's office hours will be held via Zoom. These will just be drop in sessions and will not be recorded. All review sessions will be held via Zoom. These review sessions will be recorded. See the Canvas page for the links to the Zoom sessions and recordings.

Homework submissions: All work will be submitted and graded online. You must submit your work as a PDF. A PDF ensures that I see what you think I am seeing. You will need to input your group information into Canvas for each assignment and case. Separate groups for each assignment allow you the flexibility to change your group for each assignment and case. Remember this means only one submission per group. Groups may range from 1 to 4. I want to remind you that you can use Zoom to work together on your assignments.

Missed assignments/cases due to illness: This quarter everyone is allowed TWO assignments or cases to be dropped for any reason including illness. Because solutions are posted shortly after the due date, assignments cannot be turned in late. The credit for additional missed assignments may be made up by writing a three page report (written by an individual student) on the topic related to that covered by the missed assignment or case. The specific topic will be jointly decided by instructor and student. No documentation of illness is required.

Exams: To give you the most consistency and best ability to prepare for the exam the exam format will remain the same as past years: closed book and notes, working individually with

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100 minute time limit. Copies of old past exams are posted on Canvas for you to practice from. The exam time will be as scheduled. It will be administered via a joint Zoom session. Your camera must be on you during the exam, so I may proctor the exam. I will distribute the exam electronically at the time of the exam. See Canvas for a link to the Zoom session. You have three options for completing the exam:

1. Print the exam and complete it on the paper version. Scan or take pictures of your completed exam and submit it via canvas as a PDF.
2. View the exam on your computer and write your answers, WELL LABELLED and in order on blank paper. The simplest method is each question on its own sheet. Scan or take pictures of your completed work and submit it via canvas as a PDF.
3. Write directly on the electronic version of the exam using a program of your choice, convert the completed exam to a PDF and submit via canvas.

I will allow extra time at the end of the 100 minutes for the processing and uploading of the exams. With modern smart phones and tablets there are many inexpensive apps available that allow such scanning and PDF creation. You may use the app of your choice. I'm giving you lots of warning so you can make sure you have this ability and practice it. Please contact me if you anticipate that none of these three options will work for you.

Missed exams due to illness: Missed midterm exams will have the weight of the midterm placed on the final exam. Missed final exams will result in an incomplete until an adequate time can be found for a make up exam. Because of the unusual circumstances, no documentation of illness will be required, it will be based on your honor.

Goals and Course Overview

This course will build on your core finance class and teach you how to think about and answer the fundamental questions: Where do security prices come from? What should security prices be? How do we measure security mispricing and the skill of managers who take advantage of it?

The class will give you the skills necessary to manage your own investments, those of your company and those necessary to be an active money manager. If you are interested in becoming a CFA, the course provides a great foundation for the material covered on the first CFA exam.

Along the way we will cover the following topics: market efficiency, term structure of interest rates, bond investing, portfolio theory, portfolio choice with outside income, mean variance analysis, return predictability, CAPM, multifactor models, hedge funds, measuring portfolio manager performance, and luck versus skill in money manager performance.

The only way to learn finance is by practicing the skills you will use on the job. Assignments will focus on building your quantitative, communication and critical thinking skills necessary to succeed in the investments profession.

Course Policies

Necessary Materials

- **Course Pack:** The required course pack contains the cases we will cover. It is required and available for purchase at the campus book store. It is also available for purchase online at <https://hbsp.harvard.edu/import/713587>
- **Custom Textbook & Slides:** The custom textbook and slides I wrote for the course are on the course website. See the website for details of purchasing hardcopies if you prefer those to electronic ones.
- **Optional Textbook:** The optional textbook for this course is “Investments” 10th ed. by Bodie Kane and Marcus, ISBN: 978-0077861674.¹ Earlier editions (e.g., 7th, 8th and 9th) make acceptable substitutes, but you are responsible for mapping optional reading and problems from the current edition to the earlier ones (though usually this is very easy).
- **Calculator and Spreadsheet:** To perform portions of the homework you will need access to Excel. No cell phones or laptops will be allowed on the exam so you will need to have access to a financial calculator at minimum. I recommend that if you have a graphing calculator (one you still have from your previous math classes) that you learn to use it for the matrix and vector calculations, but one is not strictly necessary.

¹There are several similarly titled books. For example do not get “Essentials of Investments” by Bodie Kane and Marcus.

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- Optional Excel Reference: Excel is a critical tool in finance. If you are not comfortable using Excel or would like to become more proficient at using it, I recommend “Next Generation Excel: Modeling in Excel for Analysts and MBAs Second Edition” by Issac Gottlieb. This is available to read online through the library. Just search the library catalog and follow the links.

Assignments

Homework & Cases

There will be 4 numerical homework assignments and 2 case reports. Homework may be done in groups of up to four students. I will drop the lowest assignment score from your grade. This drop means you only really have 5 total assignments. Turn in one copy of your homework or case per group with the name of all members of the group. You may work with students in other sections. You must set up a separate group for each case and assignment in Canvas. This allows you to change your groups as the quarter progresses. All assignments and case reports must be submitted electronically as a PDF to Canvas before the beginning of the class in which they are due.

Form and Substance

Even though form without substance is meaningless, please remember that form still matters. You should prepare all graded materials in a form that meets professional standards. These standards include but are not limited to dating all material, numbering the pages, labeling graphs and tables, and expressing yourself in a legible, concise and grammatically correct manner.

Exams

There will be a *closed-book* midterm and final exam at the times, dates, and locations listed in the course schedule. A formula sheet will be provided for each exam. The midterm is optional. If your final exam grade is better than your grade on the midterm I will drop your midterm grade, per the grading formulas in the following section. The final exam will be cumulative but focus more heavily on material covered after the midterm.

No cellphones, laptops or other electronic devices, beyond a scientific, graphing or financial calculator are allowed for either exam.

Copies of all old exams for this course will be available on the course website. I will hold review sessions prior to each exam.

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Course Grade

Course grades will follow the Foster School's policy of a median grade of 3.5 for electives.

Grade Weights

Your course grade will be determined from the maximum of the two methods.

| <u>Method A</u> | | <u>Method B</u> | |
|----------------------|-----|----------------------|-----|
| Problem Sets & Cases | 30% | Problem Sets & Cases | 30% |
| Participation | 10% | Participation | 10% |
| Midterm | 25% | Midterm | 0% |
| Final | 35% | Final | 60% |

Regrading

The TA and I work hard to assure partial credit is assigned equitably across all students. Occasionally, we will make mistakes in our grading, and we are eager to correct mistakes subject to the following limits. If you believe that there was a mistake in the grading of your exam, within one week following the return of the exam, submit the original exam and a separate written explanation of the points of contention to me. If the re-grade request is made after one week or without an accompanying written explanation, no re-grade will be given. There are no exceptions to the preceding rule. **YOUR ENTIRE EXAM WILL BE REGRADED.** This policy means that in the unlikely event that we find more scoring errors that were in your favor than against you, your regrade score could actually be lower. All re-grade decisions are final.

Late Homework

Because solutions will be posted online shortly after assignments are due and since the lowest assignment grade will be dropped, no late homework will be accepted, without *extraordinary* reason. Make sure the member of your group assigned to turn in the assignment is trustworthy and responsible.

Make Up Exams

As the midterm is optional there will be no make up option for it.

Make up final exams will be given only under very unusual and unavoidable circumstances. Treat the test date as you would an important meeting in the business world. Documented evidence that you were seriously ill at the scheduled time of an exam is the only valid excuse for missing an exam. In order to be excused from an exam, you must contact me *prior* to the exam and be ready to provide me with documentation after the exam.

A student who misses the final exam (with a valid excuse) will receive a grade of incomplete for the quarter. After the student takes the make-up exam on the scheduled date, I

will change the incomplete to the earned course grade. If a student fails to show up for the make-up exam, he/she will receive a zero for the exam.

Faith, Conscience, etc. Accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Faculty Syllabus Guidelines and Resources. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form available at

<https://registrar.washington.edu/students/religious-accommodations-request/>

For more information, please see:

<https://registrar.washington.edu/staffandfaculty/syllabi-guidelines/>

Accommodations

I and the University of Washington are committed to ensuring that students with a documented disability have equal opportunity to participate in the educational opportunities of this class. To request academic accommodations due to disability, please contact the Disability Resources for Students Office (DRS), 448 Schmitz, 206-543-8924. If you have a letter from DRS please present the letter to me so that we can discuss the accommodations that you would need help you get the most from this class.

Academic Integrity

Personal integrity is the key to your success and happiness in business and life. Throughout your life, you will be expected to abide by the ethics of the culture in which you find yourself, and failure to do so can destroy your career or worse.

The TA and I will not tolerate any cheating or other dishonesty. In order to ensure fairness on behalf of the overwhelming majority of honest students, we will refer anyone suspected of academic dishonesty to the appropriate administrative authority. There are no exceptions to this policy under any circumstances. If a student is found guilty of academic dishonesty by such authority, the student will receive a 0.0 for the course in addition to any punishment determined by that office.

Feedback

I'm always working to improve your learning experience. It is important to me to know any concerns or questions you might have. Let me know what lectures or assignments that you find the most interesting and helpful. Please stop by my office or send me an email to share any of your comments or concerns.

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Schedule

With each lecture topic there is an associated lecture note available on the course website.

Meeting 1: Monday - March 30, 2020

Topic: Course overview; market efficiency

Meeting 2: Wednesday - April 1, 2020

Topic: Risk and portfolio allocation

Meeting 3: Monday - April 6, 2020

Topics: Outside income and portfolio allocation

Meeting 4: Wednesday - April 8, 2020

Topics: Bond arbitrage

Meeting 5: Monday - April 13, 2020

Topics: Yield curve; interest rate risk

Meeting 6: Wednesday - April 15, 2020

Topics: Interest rate risk ctd.; active bond investing

Items Due: Homework #1: Portfolio allocation

Meeting 7: Monday - April 20, 2020

Topics: Optimal portfolios of risky assets: mean variance analysis

Meeting 8: Wednesday - April 22, 2020

Topics: Mean variance analysis (continued)

Items Due: Homework #2: Bonds

Midterm Review Session:

Saturday - April 25, 2020: 12:00 to 1:00 pm, Zoom.

Extra TA Office Hours:

Tuesday - April 28, 2020: 4:30 to 6:30 in Zoom

Meeting 9: Monday - April 27, 2020

Topic: Flex Day & Review

Meeting 10: Wednesday - April 29, 2020

MIDTERM: Closed book

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Meeting 11: Monday - May 4, 2020

Topics: Harvard Management Company case: come prepared to discuss the case

Readings: The case

Items Due: Case Report 1

Meeting 12: Wednesday - May 6, 2020

Topics: Long horizon investing

Readings: Excerpts from selected papers: papers and instructions posted on course website

Meeting 13: Monday - May 11, 2020

Topics: Models of equity prices and returns: CAPM and multi-factor models

Meeting 14: Wednesday - May 13, 2020

Topics: Models of equity prices and returns: multi-factor models

Items Due: Homework #3: Mean Variance Analysis

Meeting 15: Monday - May 18, 2020

Topics: Active managers: portfolio manager evaluation

Meeting 16: Wednesday - May 20, 2020

Topics: Passive managers: Dimensional Fund Advisers case discussion

Readings: The case

Items Due: Case Report 2

Meeting 17: Monday - May 25, 2020 - Memorial Day No Class

Meeting 18: Wednesday - May 27, 2020

Topics: Optimal Passive Investing

Items Due: Homework #4: Using the CAPM and multifactor models

Meeting 19: Monday - June 1, 2020

Topics: Hedge Funds

Readings: Excerpts from selected papers: papers and instructions posted on course website

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Meeting 20: Wednesday - June 3, 2020

Topics: Dynamis fund case discussion
 Performance of the active management industry
 Course wrap up

Readings: The case
 Excerpts from selected papers: papers and instructions posted on course website

Items Due: See the case questions and come with a one page handout with your preferred performance evaluation results. These will be put up on the document camera to aid in the discussion.

Final Review Session:

Saturday - June 4, 2020:

12: to 1:30 pm, Zoom

Final Exam: Monday June 8, 2020

Closed-book final exam from 2:30 pm to 4:20 pm in Zoom

TA Review Sessions

To help you with reviewing prerequisite material, the use of Excel and keeping up with course topics the TA will lead a review session each with. Each week will include the following specific topic. Beyond the main topic, these session will also be a chance to work practice problems and ask general questions about the class material.

Thursday - April 2, 2020: Basic statistics and Excel
Time & Place: 6 to 8 pm in Zoom

Thursday - April 9, 2020: Bond pricing review
Time & Place: 6 to 8 pm in Zoom

Thursday - April 16, 2020: Vectors, matrices and using them in Excel
Time & Place: 6 to 8 pm in Zoom

Thursday - April 23, 2020: NO REVIEW SESSION - Review Session on Saturday

Tuesday - April 28, 2020: Extra TA Office Hours
Time & Place: 4:30 to 6:30 pm in Zoom

Thursday - April 30, 2020: Statistics review: hypothesis testing, regressions
and running them in Excel
Time & Place: 6 to 8 pm in Zoom

Thursday - May 7, 2020: Excel accompaniments on Optimal Portfolio Risk & MVA
Time & Place: 6 to 8 pm in Zoom

Thursday - May 14, 2020: Excel accompaniments on CAPM and factor models
Time & Place: 6 to 8 pm in Zoom

Thursday - May 21, 2020: Excel accompaniments on portfolio manager evaluation
Time & Place: 6 to 8 pm in Zoom

Thursday - May 28, 2020: Excel accompaniments on advanced portfolio manager evaluation
and optimal passive investing
Time & Place: 6 to 8 pm in Zoom

Thursday - June 4, 2020: NO REVIEW SESSION - Review Session on Saturday