## Revised April 30, 2022

# **Course Details**

Classroom:	PACCAR 395	
Class time:	Tuesday and Thursday	
	Section A/B 1:30 pm to $3:20$ pm	
Course website:	Canvas	

# **Instructor Contact Information**

Instructor:	Christopher Hrdlicka
Email:	hrdlicka@uw.edu
Office:	PACCAR 324
Phone:	Email me to set up Zoom call
Office hours:	Monday and Thursday 3:30 pm to 4:30 pm via Zoom
	Or by appointment. Office hours will be held via Zoom. See Canvas for the
	link. You may make an appointment for an in person meeting if that will be
	helpful. I want to see you in my office hours when you first feel confused,
	so you can keep current in class. Feel free to stop by even if you don't have
	questions too.
Website:	http://faculty.washington.edu/hrdlicka/

# **TA Contact Information**

Instructor:	Xuan Xie
Email:	xx0901@uw.edu
Office:	Zoom
Office hours:	Wednesday 4:30 to 5:30 pm
	Office hours will be held via Zoom. See Canvas for the link
Review session:	Wednesday 6 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.

### 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 investment opportunities. How do we measure money managers' skill? And putting it all together: How should we invest?

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.

## Adjustments for COVID

This quarter we continue to face the possibility that COVID may interrupt our learning. Should there be a neccesity to change temporarily to online learning again, I will send out more detailed instructions. Should I become ill or have family care resonsibilities or other need to quarentine due to exposure, we may hold a few classes on Zoom. Again I will send out details and post relevant Zoom links to Canvas should that occur.

Should you become ill or need to quarentine for a short period, be sure to review the course material and recorded lectures on Canvas. Should longer absences be necessary or illness cause more than the two dropable assignments contact me to disuss. As we each have different complicated circumstance, further adjustments will be handled on a case by case basis as needed. Such case by case adjustments will apply to exams missed for COVID reasons.

# **Course Policies**

### **Materials**

- Required
  - Course Pack: The required course pack contains the cases we will cover both as assignments and background reading. The course pack is available for purchase online at https://hbsp.harvard.edu/import/925483 (The link is also on Canvas.)
  - Custom Textbook & Slides: The custom textbook and slides I wrote for the course are on the course website. This book is required and you should read the chapters in time with the lectures. It follows the lectures very closely.
  - Excel: To perform portions of the homework you will need access to Excel
  - Financial or graphing calculator: 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 (e.g., one you still have from your previous math classes) that you learn to use it for the matrix and vector calculations. A graphing calculator is not strictly necessary however it will make your life easier. Graphing calculators sufficient for the matrix calculations we will do can be had for around \$40 or less on Amazon.
- Optional
  - Optional Textbook: The optional textbook for this course is "Investments" 12th ed. by Bodie Kane and Marcus, ISBN: 978-0077861674.<sup>1</sup> Earlier editions (e.g., 9th through 11th) 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). I emphasize the textbook is optional, but it makes a good reference book or place for additional reading.
  - 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". The book covers the previous version of Excel, but the differences in Excel across versions are only superficial. Also be sure to review the Foster course on Excel.

## Participation

I look forward to everyone participating fully in class. Participation can take many forms: asking questions, answering questions, raising interesting and relevant points for your class-

<sup>&</sup>lt;sup>1</sup>There are several similarly titled books. For example do not get "Essentials of Investments" by Bodie Kane and Marcus.

mates and I to discuss. I remind you that active listening is an important part of participation, as is providing space for your classmates to participate. We all have something unique and valuable to contribute to the discussion.

While I welcome voluntary participation, to assure equity and to make sure everyone has an opportunity to participate throughout the course, I will include random calling. I will attempt to give a heads up to those next in the queue for being called on. Nevertheless, this may not always be the case depending upon the flow of a given class.

Though I expect you to be prepared to participate in each class, I understand life is full of unforseen circumstances that can disturb the best made plans. If you are unprepared for a given class, please let me know at the beginning of class. I will remove you from the random calling for that day. That way we can both avoid uncomfortable situations and bogging down the class flow.

### 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 TWO lowest assignment score from your grade. This drop means you only really have 4 total assignments. Turn in one HARDCOPY 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 may change your groups as the quarter progresses as you learn whom you work best with. While I will not or

Homeworks are due in HARDCOPY at the BEGINNING of class for which they are due. No late assignments are accepted as I post solutions shortly after class.

#### 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. Respond to homework questions as if your boss asked you for a report on a questions. Thinking of the assignments in this manner and responding in that appropriate level of detail and professionalism, will build valuable skills for your professional life.

#### 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. No cellphones, laptops or other electronic devices, beyond a scientific, graphing or financial calculator are allowed for either exam. If you feel uncomfortable with matrix math, I encourage you to have a graphing calculator which will make the math much simpler. However, a graphing calculator is NOT required. The choice is yours.

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

### **Course Grade**

Course grades will follow the Foster School's policy of a median grade between 3.2 and 3.4 for 400 level courses.

### Grade Weights

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

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

I reiterate, 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. To be fair to your classmates, I need to return exams quickly hence there is no feasible time for make up midterm exams.

Make up final exams will be given only under unusual and unavoidable circumstances. Treat the test date as you would an important meeting in the business world. In order to be excused from an exam, you must contact me *prior* to the exam and be ready to provide me with documentation if relevant 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, they 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 you comments or concerns.

# Schedule

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

$\frac{\text{Meeting } 1}{\text{Topic:}}$	Tuesday - March 29, 2022 Course overview; market efficiency
$\frac{\text{Meeting } 2}{\text{Topic:}}$	Thursday - March 31, 2022 Risk and portfolio allocation
Meeting 3:	Tuesday - April 5, 2022
Topics:	Outside income and portfolio allocation
Meeting 4: Topics: Readings:	Thursday - April 7, 2022 Bond arbitrage Long Term Capital Management Case (A) See reading instructions on Canvas
Meeting 5:	Tuesday - April 12, 2022
Topics:	Interest rate risk: forward rates, duration and convexity
Meeting 6:	Thursday - April 14, 2022
Topics:	Managing interest rate risk and active bond investing
Items Due:	Homework #1: Portfolio allocation
Meeting 7:	Tuesday - April 19, 2022
Topics:	Optimal portfolios of risky assets: mean variance analysis
Meeting 8:	Thursday - April 21, 2022
Topics:	Implementing mean variance analysis
Items Due:	Homework #2: Bonds
<u>Midterm R</u>	eview Session:
Saturday -	April 23, 2022: 12:00 to 1:00 pm, Zoom.
<u>Extra TA (</u>	<u>Office Hours</u> :
Tuesday - A	April 26, 2022: 5:00 to 7:00 pm in Zoom
Meeting 9:	Tuesday - April 26, 2022
Topics:	Harvard Management Company case
Readings:	The case

Items Due: Case Report 1

 $\frac{\text{Meeting 10: Thursday - April 28, 2022}}{MIDTERM: Closed book}$ 

Meeting 11:Tuesday - May 3, 2022Topics:Long horizon investingReadings:Excerpts from selected papers<br/>Papers and reading instructions posted on course website

Meeting 12: Thursday - May 5, 2022 Topics: CAPM and estimating it

Meeting 13: Tuesday - May 10, 2022 Topics: Multi-factor models

Meeting 14: Thursday - May 12, 2022 Topics: Active managers: portfolio manager evaluation Items Due: Homework #3: Mean Variance Analysis

Meeting 15: Tuesday - May 17, 2022 Topics: Passive mangers: Dimensional Fund Advisers case Readings: The case Items Due: Case Report 2

Meeting 16: Thursday - May 19, 2022 Topic: Guest Speaker

Meeting 17: Tuesday - May 24, 2022

Topics: Optimal Passive Investing

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

Meeting 18: Thursday - May 26, 2022 Topics: Hedge Funds: Readings: Dynamis Fund Case Long Term Capital Management Case (C) See reading directions on Canvas  $\frac{\text{Meeting 19: Tuesday - May 31, 2022}}{\text{Topics: International investing}}$ 

Meeting 20: Thursday - June 2, 2022 Topics: International investing continued Course wrap up

<u>Final Review Session</u>: Saturday - June 4, 2022: 12:00 to 1:30 pm, Zoom

<u>Final Exam</u>: Monday - June 6, 2022 Closed-book final exam from 12:30 to 2:20 pm in PACCAR 394

### **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.

- Wednesday March 30, 2022: Basic statistics and Excel Time & Place: 6 to 8 pm in Zoom
- Wednesday April 6, 2022: Bond pricing review Time & Place: 6 to 8 pm in Zoom
- Wednesday April 13, 2022: Vectors, matrices and using them in Excel Time & Place: 6 to 8 pm in Zoom
- Wednesday April 20, 2022: NO REVIEW SESSION Review Session on Saturday

Wednesday - April 27, 2022: Statistics review: hypothesis testing, regressions and running them in Excel Time & Place: 6 to 8 pm in Zoom

- Wednesday May 4, 2022: Excel accompaniments on Optimal Portfolio Risk & MVA Time & Place: 6 to 8 pm in Zoom
- Wednesday May 11, 2022: Excel accompaniments on CAPM and factor models Time & Place: 6 to 8 pm in Zoom
- Wednesday May 18, 2022: Excel accompaniments on portfolio manager evaluation Time & Place: 6 to 8 pm in Zoom
- Wednesday May 25, 2022: Excel accompaniments on advanced portfolio manager evaluation and optimal passive investing Time & Place: 6 to 8 pm in Zoom
- Wednesday June 1, 2022: NO REVIEW SESSION Review Session on Saturday