Seattle University
Albers School of Business and Economics

Course: **FINC 4520-1 Portfolio Management**
Professor **Dr. Jot Yau, CFA**
Term **Winter 2021**
Class time **T/Th 1:30p.m.-3:45p.m. (via Zoom)**

IMPORTANT: PLEASE TURN THE WEBCAM ON DURING CLASS.
TURN THE MIC ON WHEN YOU SPEAK.

Contact Information

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Office Hours: Tuesday and Thursday 4:00pm-5:30pm; other times by appointment (only afternoons)

Prerequisites

You must have successfully completed **FINC 3440** prior to taking this course. NO EXCEPTIONS.

Also, this course presumes that you have completed introductory courses in basic math, finance, accounting and statistics. Specifically, you are expected to have proficiency in (i) algebra; (ii) accounting principles including financial statements and financial ratios; (iii) basic statistics, including some knowledge in probability distributions (mean and variance) and regression analysis; (iv) *Excel* spreadsheet modeling, and (v) internet skills such as searching, email, downloading files, etc. If you have not completed the necessary coursework or do not feel comfortable with the requisite skills, you will find the concepts introduced in this course difficult. Please see me if you have any questions regarding the prerequisites.

Course Description and Objectives

This course focuses on the design of "efficient" portfolios within a mean-variance framework. The subjects included are: portfolio management process/framework (setting portfolio objectives and constraints, revision and monitoring), mean-variance analysis and optimization, modern portfolio theory, asset allocation, investment styles and analysis, performance measurement, creation and use of portfolio optimization software.

This course introduces the portfolio management process through an examination of the conceptual as well as implementation issues relating to the construction and management of diversified portfolios. Thus, our goal is to learn the professional techniques of managing large portfolios.

The portfolio management process consists of an integrated, consistent set of steps by which an investment manager creates and maintains appropriate combinations of investment assets. It draws upon the framework recommended by the CFA Institute to investment professionals. It is a dynamic and flexible process, complete with feedback loops, monitoring, and revision/adjustment.

In managing large portfolios, the money management industry relies on computers that render the quantitative analysis of massive data feasible. In this class, project assignments are used to enhance your understanding of the portfolio management process and allow you to acquire hands-on experience in modeling and solving portfolio optimization/asset allocation problems. As such, this is a quantitative course.

Thus, in sum, what this class WILL attempt to do for you:

- Expose you to the best practices in the portfolio management field
- Expose you to the theory and evidence in portfolio management
- Provide hands-on experience in developing portfolio optimization tools using EXCEL
- Enable you to develop and evaluate your own asset allocation
- Provide foundation knowledge in portfolio management for those who pursue the Chartered Financial Analysts (CFA), Chartered Alternative Investment Analyst (CAIA), and Financial Risk Manager (FRM) professional designations in the future.

Learning Outcomes for Finance Major

This course meets the learning outcomes of the finance major at Albers: https://www.seattleu.edu/business/departments/finance/program-objectives/

Required Texts & Materials

Teaching materials are drawn from the textbook (eBook), newspapers, journal articles, and/or periodicals. There are assigned chapters for each class. I expect students come to class prepared for the materials that will be covered that day. You will find the materials much easier to grasp if you have read the assigned materials and attempted the end-of-chapter problems in advance.

A. There is one **required text (eBook)**.

The required text is an eBook that you can purchase online from the publisher. The eBook (ISBN-9781307667844), which you can purchase online from the publisher (see eBook purchase instructions posted on Canvas) is composed of chapters 5-10, 24, 27, and 28 from *Investments* by Bodie, Kane and Marcus, 12th edition, McGraw-Hill, 2021 (ISBN 9781260013832).

B. Class materials including power point notes (Notes 1-9) posted on CANVAS, including supplemental readings such as journal articles and newspaper clippings.

C. Additional assigned readings as required.

Course Policies

1. Course Grade

Course grade will be based on the assessment of the following:

Class participation	7
In-class activities	8
2 Quizzes	10
2 Batches of assigned end-of-chapter problems	10
3 Project assignments (5+10+10)	25
Mid-term exam	20
Final exam	20
Total	**100**

Students often claim they did not show how much they knew on the test. Alternatively, they may indicate that they studied "real hard" but just could not grasp the material before exams. Having been a student for over 20 years myself, I am sure that such sentiments have a certain amount of validity. But, under the present system, I must say that the points are really irrelevant. I have no better measure of performance by effort rather by result. Therefore, to be fair to everybody, grades are based on performance – not "knowledge" or effort. Accordingly, one's efforts should be directed toward achieving the maximum performance relative to potential and input.

Your course grade depends on the distribution of the weighted average scores. Normally, a weighted average score of 95 or above is an A, between 90 and 95 is A-, between 80-89 is (B+, B, B-), 65-79 is (C+, C, C-). The actual demarcation line for each letter grade depends on the actual distribution of all weighted average scores in this section. If the distribution warrants, plus or minus grades may not be given. It is expected that the median grade in this course will be a B, based on the median of the last class taught.

2. Exams and Grading

Exams are time-constrained exams. That is, you must complete the exam within a specific time, typically within 100 minutes. Makeup exams will not be given except in a dire emergency and only if I am notified prior to the scheduled exam time.

The final exam must be written during the scheduled final examination time and will cover the materials since the mid-term exam (in other words, it is not comprehensive). The date for final exam is cast in stone, keep this in mind when you make plans. It goes without saying, if you do not show up at the scheduled time to write the exam, you will receive a zero score.

Grades are not negotiable and will only be changed in the case of math or grading error on the instructor's part. This is because of the grading method I use – "norming." By norming, I grade each question for the whole class before I decide how much partial credit will be given against the predetermined grading key. Thus, effectively I curve your score on each question.

If you do not agree with my grading and request a re-grading of your exam, you need to **write a formal re-grading request.** When an exam is requested for re-grading, the entire exam will be re-graded based on the pre-determined grading key and not on the "normed grading key", i.e., all previous partial credits given based on the norming process will be removed. You should be aware that a lower score may result due to this process of re-grading.

3. Assigned End-of-Chapter Problems

Two batches of assigned end-of-chapter problems will be collected; one will be right before the mid-term exam, and the other right before the final exam. These assignments are due at the beginning of class on scheduled dates (see schedule below for due dates). Late submission, defined as turning in 30 minutes after the deadline will not be accepted. There is **no make-up** for this requirement. All computations must be shown clearly for full credit; typed submissions are preferred, but legible, handwritten submissions are acceptable.

Grading Criteria for Assigned End-of-Chapter Problems

Grade for assigned end-of-chapter problems depends on effort and accuracy/correctness of the answers. **I may grade all, part, or none of the problems.** For problems that are not graded, you will receive full credit if you have attempted them completely. For the graded problems, the grade is based on accuracy. For example, if Problem #1 was selected for grading and if you missed doing that problem, you would receive a zero score. If you attempted the problems but you were not all correct in your answer, you might receive a partial credit for the problem.

The level of difficulty of the computational problems in the exams is similar to those of the end-of-chapter problems. You will be better prepared for exams if you attempt all end-of-chapter problems. You will learn more too, and the alternative is not worth the risk.

4. Quizzes

Two quizzes will be given during the quarter. **Dates for the quizzes are stated in the schedule below**. The quizzes are given at the beginning of the scheduled class, which are 15-20 minutes long and may include problems, short concept questions, and/or TRUE/FALSE statements that may require explanations. The quizzes cover what have been covered in previous classes (both concepts and computations). You must bring a calculator to every quiz. **Important: If you are absent from class or late for class, you cannot make up the lost grade for quizzes.**

5. In-class activities

In-class activities, such as computation exercises and short concept questions, will be given at the end of some class sessions to engage you in active learning. If you pay attention to class, you should be able to complete these in-class exercises without problem. You will be given full credit if you partake in these exercises and thus attending class is necessary. **There is no make-up for missed exercise or credit**.

6. Term project assignments

The term project is a portfolio optimization project. You are asked to build an optimization (asset allocation) model using the SOLVER (an add-in optimization algorithm in EXCEL). It entails three assignments. Assignment #1 and 2 are individual efforts, whereas Assignment #3 is a team effort (2- or 3-person team). The instructions for each project assignments will be posted on CANVAS and discussed in class in due course. **The assignments are due on scheduled dates (see schedule below)**. Late assignments will not be accepted.

7. Class Participation and class etiquette

Despite this is an online course, the distinctive advantage of being taught in a virtual classroom environment (vis-à-vis online asynchronous classes) is the opportunity to interact with the professor who would hopefully enlighten you and with your classmates who would share their experience with you. I also believe that learning requires active participation. Thus, class participation is expected. As such, regular class attendance is expected during the term. Turning off the webcam during class is considered as absent from class. Irregular class attendance will lead to a lower final grade. There is no make-up for missing classes.

In addition, it is extremely important to observe professional etiquette in class so that neither you and your peers nor I would be distracted and the time for learning is taken away. Specifically, please read and adhere to the protocol and etiquette as described in the document "Synchronous FAQs 21WQ" posted on Canvas under modules - Class Documents.

Frequent violations of the protocol and etiquette can cost you up to a maximum 7-point deduction from course participation.

8. CANVAS

The course web page on CANVAS is up and running. Always check the CANVAS page before class. This site will include PowerPoint files of course lecture notes, assignments and solutions, any external web links, and relevant updates about the class including any changes in assignments or exams. You will be responsible for bringing the relevant course materials to each class.

If a file or link is not operational, please let me know via email ASAP so that I can fix it. If you have any other problems using CANVAS, contact the Seattle University technology help desk.

9. Audio and/or videotaping

Audio or videotaping in class is prohibited**.** For protection of proprietary knowledge and for a variety of other reasons, audio and videotaping of any class session is strictly prohibited. I may record some class sessions when I believe it is needed.

10. Academic Integrity

Seattle University is committed to the principle that academic honesty and integrity are important values in the educational process. Academic dishonesty in any form is a serious offense against the academic community. Acts of academic dishonesty will be addressed according to the Seattle University Academic Honesty Policy. If you are not sure whether a particular action is acceptable according to the Academic Honesty Policy, you should check with your instructor before engaging in it.

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student

for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details).

Academic Policies on Registrar website
(https://www.seattleu.edu/registrar/academics/performance/)

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy *(only for those professional programs to which it applies)*

11. University Resources

Academic Resources

- Library and Learning Commons (http://www.seattleu.edu/learningcommons/)
  (This includes: Learning Assistance Programs, Research [Library] Services, Writing Center, Math Lab)
- Academic Integrity Tutorial *(found on SU Online)*

12. Notice for students concerning disabilities

If you have, or think you may have, a disability (including an 'invisible disability' such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.

13. Title IX Policy

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as well as assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.

Seattle U requires all faculty and staff to notify the University's Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student.

For more information, please visit https://www.seattleu.edu/equity/. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity (**email**: oie@seattleu.edu; **phone**: 206.296.2824)

14. Schedule and Due Dates

Please come to class prepared – Read the assigned readings before class

Your learning is my primary concern in this course, so I may modify the schedule if, for instance, I find it necessary to spend more time on a certain topic and less on another. Thus, this schedule is subject to change.

Tentative Class Schedule

Date	Topic, Quizzes, and Project assignment due dates	Assigned reading*	End-of-chapter problem assignment and due dates*
Jan 5, 7	• Course Overview • Portfolio Management Process and Framework • Role of Portfolio Manager in an Efficient Market • Ethical Responsibility of Portfolio Managers • Investment Policy Statement (IPS) • Project assignment#1 instructions •	Notes 1; B28. **Kwan	B28-CFA #1, 5
Jan 12, 14	• Asset Allocation • Basic Inputs to Asset Allocation: - Return and Risk (forecast and historical) - Return Probability Distribution	Notes 2; Notes 3A; B5 (you review it on your own); B24 (pp. 813-5); TN1; TN2.	**Project Assign#1 due (1:30pm, Thursday, Jan 14)** B24 #1, 5-7 B5-CFA#3-6
Jan 19, 21	• **Quiz #1 (Jan 21)** • Project Assignment #2 Instructions • Risk Aversion and Mean-Variance Utility Function • Portfolio Math - Covariance and Correlation	Notes 3B; B6 (§6.1); B7 Appendix B.	B6-CFA#1-3
Jan 26, 28	• Portfolio Theory (I): Capital Allocation - Risk-Free and Risky Assets - Risk Tolerance - CAL vs. CML	Notes 4A; B6 (§6.2-6.6).	B6 #13-19; B6-CFA#4-9 **Assigned end-of-chapter problems #1 due (1:30pm, Friday, Jan 29)**

Date	Topic, Quizzes, and Project assignment due dates	Assigned reading*	End-of-chapter problem assignment and due dates*
Feb 2	**Mid-term Exam**		
Feb 4, 9, 11	• Project Assignment #3 Instructions • Portfolio Theory (II): Efficient Diversification of Risky Assets - Markowitz theory	Notes 4B; B7 (§7.1-7.4); B7 Appendix A.	**Project Assign#2 due (1:30pm, Tuesday, Feb 9)** B7 #4-8; B7-CFA#9, 12
Feb 16, 18	• Portfolio Theory (III): Asset Allocation Risky & Risk-Free Assets • CAPM	Notes 4B (cont'd) Notes 5 (A); B9.	B9 #10-12, 21, 23; B9-CFA#2
Feb 23, 25	• Single Index Model & Sharpe optimization	Notes 5 (B); B8 (§8.1-8.3)	B8 #5, 6, 8-14
Mar 2	• **Quiz#2 (Mar 2)** • Factor Models	Notes 6; B10 (§10.1, 10.5)	
Mar 4	• Theory of Active Portfolio Management: Treynor-Black Model	Notes 7; B8 (§8.4-8.5); B27(§27.1-27.2, skim the rest).	B8 #17-18
Mar 9	• Portfolio Performance Evaluation • Benchmarks	Notes 8; B24 (§24.1); **Richards.	**Project Assign#3 due (1:30pm, Tuesday, Mar 9)** B24 #9, 21; B24-CFA #4-6;
Mar 11	• Style Investing • Returns-Based Style Analysis • Performance Attribution	Notes 9; **Ben Dor & Jagannathan (pp. 3-26). B24 (§24.5-24.6).	**Assigned end-of-chapter problems #2 due (1:30pm, Friday, Mar 12)**
Mar 18	**Final Exam (Thursday) 12:00pm-1:50pm**		

* B28 – Original chapter number from *Investments,* 12th edition by Bodie, Kane**,** and Marcus (i.e., Ch. 28);
B24 #1 - refers to the end-of-chapter problems from the original chapter Bxx (i.e., Ch 24, problem **#1)**
B28-CFA#5 - refers to the end-of-chapter CFA problems of Bxx (i.e., Ch. 28, CFA problem #5)

**Additional Required Readings

1. Kwan, C. C.Y. "Portfolio Analysis Using Spreadsheet Tools," *Journal of Applied Finance*, Vol. 11, No.1, 2001, pp. 70-75. http://web.a.ebscohost.com.proxy.seattleu.edu/ehost/detail/detail?vid=2&sid=5db60be5-c2c6-46f2-860d-835789ab8809%40sdc-v-sessmgr03&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=5899671&db=bth

2. Richards, T.M. "Alternatives to Broad Market Index," AIMR, 2001.

3. Ben Dor, A. and Jagannathan, R. "Understanding Mutual Fund and Hedge Fund Style Using Return-Based Style Analysis," pp. 3-26, NBER, 2002. Can be downloaded from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=324053)

Recommended Reference

Sharpe, W.F. "Asset allocation: Management Style and Performance Measurement," *Journal of Portfolio Management*, Winter 1992, pp. 7-19, accessible at http://www.stanford.edu/~wfsharpe/art/art.htm.