

UNIVERSITY OF HAWAII AT MANOA
Shidler College of Business
FIN655: Financial Forecasting
Fall, 2021

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Class Meetings: Monday 6:00 - 8:45 pm
Office Hours: F 4:00 pm - 5:30 pm or by appointment
Teaching Assistant: Xiaobo Liang (xliang9@hawaii.edu), M 3:30-5:30 pm.

Course Objective

FIN 655 aims to provide all of the essential tools to understand the quantitative aspects of investing, and build an excellent foundation for understanding the statistics and economics of portfolio management and asset pricing. In this class, we explore quantitative concepts and techniques used in financial analysis and investment decision making. We present descriptive statistics for conveying important data attributes, such as central tendency, location, and dispersion, and introduce characteristics of return distributions. We also cover probability theory and its application in quantifying risk for investment decision making. An introduction to linear regression and time-series analysis models will also be provided. This course provides an excellent preparation for the Quantitative Methods topics in the CFA Levels I and II exams.

Course Materials

- (1) Required Book: *Quantitative Investment Analysis*, 4/e, by DeFusco, McLeavey, Pinto, and Runkle, CFA Institute Investment Series, Wiley, 2020
- (2) Calculator: Texas Instruments BA II Plus.
- (3) Lecture notes, data sets, answers to assigned homework and announcements are available at Laulima. To download the files, log on at laulima.hawaii.edu using your UH user name and password, and select “Resources” in “FIN-655-201 [MAN.1347.FA21]”.

Course Evaluation

Your grade in this course will be determined by the mid-term and final exams, in addition to homework and class participation. The course grade will be weighed as follows:

<u>Grading Scheme</u>	
Class Participation and Homework	30 points
Mid-term exam	30 points
Final Exam	40 points

Class Participation:

Attendance is mandatory for all students. Absence for any personal reasons should be brought to the instructor's attention via email *before* the class. You are expected to participate in class discussions. Students may also be asked to demonstrate homework in class.

Homework:

Homework problems will be assigned in class and are due at the beginning of class next week. Student should submit homework through Laulima before the deadline. Late submissions will be accepted with partial credit if done independently. The solutions to homework will be posted at Laulima and discussed in class. The homework will help you understand the lecture materials and prepare for the exams. Students may work in groups on homework, but each student must submit his/her homework separately.

Exams:

There will be one mid-term exam and a final exam. The final exam is comprehensive, but will mainly focus on the materials covered after the mid-term exam. Both the mid-term exam and the final exam will be online and taken by the students as per the course schedule. *No make-up exam* will be allowed. The exams will be open book and open notes. The details of exam arrangements will be shared in class later. There are previews before the midterm and final exam.

Academic Honesty

All relevant SCB policies concerning academic honesty, grievance procedure and confidentiality in grading apply. Students with disabilities are encouraged to contact the KOKUA Program for information and services. Services are confidential and free of charge. In case of need, contact KOKUA at 956-7511, or kokua@hawaii.edu, or Student Services Center Room 13. Early contact is strongly recommended.

Course Outline

Week 1 (August 30): Syllabus, Ch1. The Time Value of Money

Week 2 (September 13): Ch1. The Time Value of Money; Ch2. Organizing, Visualizing, and Describing Data

Week 3 (September 20): Ch2. Organizing, Visualizing, and Describing Data

Week 4 (September 27): Ch3. Probability Concepts

Week 5 (October 4): Ch4. Common Probability Distributions

Week 6 (October 11): Ch5. Sampling and Estimation

Week 7 (October 18): Ch6. Hypothesis Testing, Midterm Preview

Week 8 (October 25): *Midterm*, Ch7. Introduction to Linear Regression

Week 9 (November 1): Midterm Review, Ch7. Introduction to Linear Regression

Week 10 (November 8): Ch8. Multiple Regression

Week 11 (November 15): Ch8. Multiple Regression

Week 12 (November 22): Ch9. Time-Series Analysis

Week 13 (November 29): Ch12. Using Multifactor Models

Week 14 (December 6): Ch10 and Ch11. Machine Learning and Big Data Projects, Final Preview

Week 15 (December 13): *Final Exam*

Note: The courses syllabus provides a general plan for the course; deviations may be necessary.