# NATIONAL TAIWAN UNIVERSITY Department of International Business

### Investments (投資學)

Professor Jr-Yan Wang (王之彦)Fall 2024Room 104, Building 1, College of ManagementMonday 14:20-17:20jryanwang@ntu.edu.tw02-33664987

### **COURSE DESCRIPTION**

An investment is the current commitment of money or other resources in exchange for future benefits, i.e., you sacrifice something of value now and expect to benefit from that sacrifice later. Since every investor is concerned about the **rate of return** (報酬率) he earns and the **degree of risk** (風險程度) (i.e., **uncertainty** (不確定性)) he bears when making investment decisions, security markets are so competitive that it is difficult to earn **abnormal returns** (異常報酬或是超額報酬) when investing securities.

In addition to learning how to estimate the rate of return and the degree of risk of financial assets or portfolios (金融資產或組合), students in the course will also study comprehensive investment-related knowledge, including but not restricted to (1) characteristics of diverse financial securities (金融證券); (2) security valuation methods (證券評價方法) (e.g., DCF, CAPM, APT, macroeconomic or financial statement analysis, etc.) and how to identify over- or under-valued securities; (3) analyzing market efficiency (市場效率性) and using proper fundamental- (基本 分析) or technical-analysis (技術分析) trading strategies (交易策略) in markets with different degrees of efficiency; (4) the portfolio theory (投資組合理論) for constructing risk-diversified portfolios.

Understanding the content of this course not only gives you a sense to manage your personal wealth in the future but also builds you a solid foundation for more advanced courses in the finance field.

# VERSUS FINANCIAL MANAGEMENT

Some content of this course is similar to that in Financial Management because both courses discuss the financial markets, financial securities, valuation methods for debt and stock, etc. However, the major difference between these two courses is the **different viewpoints they stand for** (角度不同). In **Financial Management** (財務 管理), we study financial and investing decisions for **firms** (公司) (focusing specifically on how firms invest projects and how they raise the money to pay for

these investments), but in **Investments** (投資學), we study investment-related knowledge and decisions for **institutional or individual investors** (機構或個別投 資人). In addition, the optimal capital structure and dividend policy are exclusively introduced in Financial Management, but Investments pays more attention on portfolio management, security analyses, and trading strategies. Finally, some basic tools, like DCF or IRR, are usually taught in Financial Management but not in Investments, so the suggested sequence is to learn Financial Management first and then Investments.

#### LECTURE NOTES AND TEXT BOOK

Lecture Notes: http://homepage.ntu.edu.tw/~jryanwang/  $\rightarrow$  Course Information  $\rightarrow$ 

Investments (undergraduate level)

(For each chapter, there is a corresponding PowerPoint file, the content in which mostly follow the textbook but may not be exactly the same.)

(The most updated PowerPoint files for each-week lecture are available after 9:00 p.m. every Sunday.)

(DO NOT access NTU COOL for the syllabus and lecture notes.)

Required Text: Essentials of Investments, by Bodie, Kane, and Marcus, 2025, 13th ed.

(The representative bookstore of this book in Taiwan is 華泰文化, which provides the students in this course the following two links http://eshop.hwatai.com.tw/SalePage/Index/guX!0NqIAB0IhKLlDJ nR3rN81yGxjuT08MzILvAGIJk=

and

https://eshop.hwatai.com.tw/SalePage/Index/5bH5Gnn!TUHUtmqm m8Mw3w==

with which you can buy the **paper** and **electronic** textbook at the group-purchase prices, respectively. In addition, 華泰文化 also provides the free-shipping code SPFREE24, valid until the end of September, for those who purchase the paper textbook. The teaching assistant and I are not involved in ordering the text book for students, so if you encounter any problems when purchasing the text book, please contact Mr. 李本鈞 via (02) 2162-1217 ext. 171 or ben.lee@hwatai.com.tw. Finally, do not distribute the above link and free-shipping code to students not enrolled in this course.)

Lecture Video: The each-week lecture video will be posted on NTU COOL within 24 hours after the class dismissed. If not, please remind me by sending me an email. The lecture videos are provided only for the students officially enrolled in this course to review the lecture but not available for audit students.

## **EXAMS AND GRADING**

Midterm Exam	50% (on Oct. 21 <sup>st</sup> )	
Final Exam	50% (on Dec. 16 <sup>th</sup> )	
Checking attendance (since Sept. 16 <sup>th</sup> , 1	maximum three times)	+0-6%

- \* The exam dates are regulated by NTU. Please ensure that you will be available to attend these two exams before you decide to take this course.
- ※ If you cannot attend the exams due to some emergent events, you need to notify me before the exams and show me some proofs, e.g., a medical diagnosis or Covid-19 rapid test result. Any late notification is not acceptable. In addition, I reserve the final right to accept or deny your request.
- \* The range for the each exams depends on the speed of my lecture. On average, I teach one chapter in a three-hour lecture. The range is not accumulative for the final exam.
- X The format of the two exams: 30% for term explanation and 70% for calculation problems. All calculation problems are collected from the quizzes and questions at the end of each chapter in the required textbook with minor modifications.
- \* The problems are expressed in English, but the answers in either English or Chinese are acceptable.
- ※ The rule of ALTERNATE SEATING (梅花座) will be enforced if possible. Any dishonesty in the exams will lead to a failed result.
- X Students should prepare your personal calculators for the two exams. Financial or Scientific calculators are allowed. However, smartphones and calculators which have memorizing functions are forbidden.
- \* Please attend the classroom on Oct. 28<sup>th</sup> to take back your graded examination sheets. Do not take away graded examination sheets on behalf of other classmates. However, final exam results will not be released.
- ※ In order to maintain fairness in the class, there are no make-up exams or other alternative measures for the two exams. I will ignore all emails asking for any alternative way to make up your grades.
- ※ I will curve your semester grades so that the average grade of this course is comparable to other courses offered by College of Management of NTU. For your information, in the last year, there are 97 students attending the class at the end of the semester and the average scores of the midterm and final exams were 63 and

60, respectively. After the grade adjustments, 71% of students received grade Aor above, and 3% of students failed.

# **RULES IN CLASS**

- **\*\* DO NOT DISTRACT OTHERS** from listening to my lecture, e.g., do not chat with other students when I am talking.
- X If you have any questions during my lecture, feel free to interrupt me by raising your hand.

# **COURSE SCHEDULE**

Week	Date	Торіс	Reading
1	Sept. 2	Introduction of Investments	Syllabus
		Investments: Background and Issues	Ch. 1
2	Sept. 9	Investments: Background and Issues	Ch. 1
		Asset Classes and Financial Instruments	Ch. 2
3	Sept. 16	Asset Classes and Financial Instruments	Ch. 2
4	Sept. 23	Risk, Return, and the Historical Record	Ch. 5
5	Sept. 30	Efficient Diversification	Ch. 6
6	Oct. 7	Capital Asset Pricing and Arbitrage Pricing Theory	Ch. 7
7	Oct. 14	Capital Asset Pricing and Arbitrage Pricing Theory	Ch. 7
		The Efficient Market Hypothesis (no physical class,	Ch. 8
		but lecture videos being available)	
8	Oct. 21	MIDTERM EXAM	
9	Oct. 28	The Efficient Market Hypothesis	Ch. 8
10	Nov. 4	Behavioral Finance and Technical Analysis	Ch. 9
11	Nov. 11	Bond Prices and Yields	Ch. 10
12	Nov. 18	Managing Bond Portfolios	Ch. 11
13	Nov. 25	Macroeconomic and Industry Analysis	Ch. 12
14	Dec. 2	Equity Valuation	Ch. 13
15	Dec. 9	Buy on Margin and Short Sales	Ch. 3.8-
			3.9
		Mutual Funds and Exchange-Traded Funds	Ch. 4.1,
			4.3, 4.6
16	Dec. 16	FINAL EXAM	

X Note that the above schedule is an estimated version, I will dynamically adjust the speed of my lecture according to the feedback of students.

### **OFFICE HOURS**

Tuesday 15:10-16:30

Room 712, Building 2, College of Management

- X It is not suggested to ask academic questions via emails. First, it is nearly impossible to discuss academic issues in emails. Second, I believe that the face-to-face communication is the best way for me to understand your questions and give you the most proper guidance to solve your problems.
- X If you have difficulties in solving end-of-chapter quizzes or questions, please ask the teaching assistant first. It is preferred to make an appointment with the teaching assistant rather than ask him questions in emails.
- X Try to fully utilize my office hours before making an individual appointment.

#### **COURSE OBJECTIVES**

- X Students can know various kinds of financial instruments and their characteristics.
- X Students can learn how to estimate the rate of return and the degree of risk of financial assets or portfolios.
- X Students can understand the portfolio diversification and how to construct efficient portfolios.
- X Students can realize the Capital Asset Pricing Model (CAPM), one of the most important theory in the finance area.
- X Students can calculate the theoretical values and analyze risks associated with stocks or bonds.
- X Students can discern the degree of market efficiency in a financial market and thus employ proper trading strategies.

#### <u>SPECIAL NOTE</u>

※ I need two volunteers to help me to turn on the PC and projector, download the lecture notes from my website, and borrow the portable wireless microphone from the Receiving Room (管理室) of Building 1 of College of Management before each-week lecture. Students from Department of International Business are given priority in applying the job. The final scores of the two volunteers will be awarded additional three points.

# TEACHING ASSISTANT

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