**Investment Banking**

**Spring 2019**

**Tues. 2:20 -5:20 p.m. Dr. Yong-chern Su**

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**Course Objectives**

1. To introduce the fundamental concepts and the systems of investment banking in the U.S., the U.K., and the Japan.
2. To discuss the essentials of investment banking, which include investment banking activities, equity and debt underwriting, secondary market making, market making by financial engineering, corporate restructuring, etc.,.
3. To apply financial theory, including capital budgeting, optimal capital structure, optimal dividend policy, prospect theory, CAPM, APT, OPM, GARCH, GARCH option pricing, GARCH value at risk, on investment banking.
4. To develop customized trading strategies, based upon state variables and MIT approach to beat the market.

**Class Structure**

The class notes and required textbook are the foundation of this course.

**Exams**

A comprehensive final examination is required in this course. Class participation is, among other things, a very important factor in your final grading.

**Required Textbook**

Investment Banking, by Yong-chern Su, Second Chinese edition, 2009, Shinlou.

**Date Topics and References**

2/19 Introduction

2/26 Investment Banking Activities

 莊子齊物論, Intertemporal consumption model

3/5 Investment Banking Activities

 Capitalism

3/12 Investment Banking Activities

 Optimal capital structure

3/19 Investment Banking Activities

 Optimal dividend policy

3/26 Investment Banking Industry

 Main stream finance, Risk measurements

4/2 Spring Break

4/9 Investment Banking Industry

 General equilibrium: CAPM and APT

4/16 Primary Market Making --- equity underwriting

 VC Time machine, Strategic investing theory

4/23 Primary Market Making --- equity underwriting

 Investment bank reputation theory

4/30 Primary Market Making --- debt underwriting

 Term structure theory, Call equity parity

5/7 Primary Market Making --- debt underwriting

 Duration and Bond management

5/14 Secondary Market Making

 Stock Return Galaxy,

 Time domain: Chaos, Time series, GARCH and MIT approach

 Space domain: State variable approach

 Rational vs. Animal spirit

5/21 Secondary Market Making

 GARCH Value at Risk, Spatial arbitrage system

5/28 Market Making by Financial Engineering

 BS option pricing model vs. GARCH option pricing theory

6/4 Corporate Restructuring

 Fisher separation theory

6/11 Corporate Restructuring

6/18 Final Examination