**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