# Fulbright School of Public Policy and Management Summer Semester, 2018

# The Appraisal of Public Investments 4 credits

## **Teaching Team**

Instructor:	Tran Thi Que Giang (giang.tran@fuv.edu.vn)
	Do Thien Anh Tuan (tuan.do@fuv.edu.vn)
Teaching Fellow:	Hoang Van Thang (thang.hoang@fuv.edu.vn)
Teaching Assistant:	Ho Thi My Hanh (hothimyhanh271@gmail.com)

### **Class Meeting Time**

Monday	08:30 - 10:00
Wednesday	08:30 - 10:00
Friday	08:30 - 10:00

### **Office Hours**

	Monday	Tuesday	Wednesday	Thursday	Friday
Trần Thị Quế Giang			15:30-17:00		15:30-17:00
Đỗ Thiên Anh Tuấn		15:30-17:00		15:30-17:00	
Hoàng Văn Thắng			15:30-17:00		15:30-17:00
Hồ Thị Mỹ Hạnh	12:00-13:00				13:00-15:00

If the scheduled office hours are not convenient, please make specific appointments with members of the teaching team.

The goal of our MPP Program is to "educate students who are Confident, Competent, Connected, Committed, and Competitive, in aid of improving public policy and decision-making in Vietnam as the country transforms to an advanced, globally-integrated economy."

### **Course Competencies and Objectives**

This course focuses in part on NASPAA Universal Competency 2#: "To participate in and contribute to the policy process" and #3: "To analyze, synthesize, think critically, solve problems and make decisions," and MPP Competency #8: "To contribute effectively to the public policy reform in Vietnam".

The objective of the course is to expose students to both the theoretical principles and the practical applications of public investment project appraisal. Upon completion of the course, students will have gained the knowledge and skills necessary for conducting the financial and economic appraisals. In addition, students are expected to build appraisal model by Excel for practical projects of public investment, evaluating the feasibility and analyzing risks based on the model.

Upon completion of the course, students are expected to:

- Having a critical thinking on current public investment issues
- Be able to build appraisal model to analyse any public investmenet project performance, feasibility and risks;
- Be able to make a decision on public finance and investments;
- Contribute effectively to the economic reform and develpement in Vietnam by providing evidence-based analysis to avoid unhealthy project and allocate capital toward the good public investment project.

## **Course Description**

The course is divided into two major parts. In the first part of the course, we discuss the fundamentals of project financial appraisal, ranging from project structure to the financial cost of capital, the construction of cash flows, the application various appraisal criteria, basic financial model and risk management. The second part of the course is devoted to the social and economic appraisal of a public investment project, including the methods of estimating the economic costs and benefits of project inputs and outputs in different market structure and extortion, the economic values of production factors such as capital, land, foreign currency and the evaluation of stakeholder impacts.

While there are formal lectures every week, more than half of class time will be devoted to case study discussion. Students will have to use the knowledge and skills acquired in formal lectures and readings to analyze real cases within the context of public investment in Vietnam and the world.

### **Course Requirements**

Students will have to complete four problem sets covering major technical and theoretical aspects of the course. The problem sets will include questions and policy memos relating to the case studies discussed in the class.

Problem Set	Торіс	Date of	Date of
Problem Set		Distribution	Submission
Problem Set 1	Basic financial modeling for project appraisal	20/06/2018	06/07/2018
Problem Set 2	Financing, sensitivity and risk analysis	06/07/2018	20/07/2018
Problem Set 3	Economic Price in project appraisal	06/08/2018	20/08/2018
Problem Set 4	Modeling and economic analysis	20/08/2018	07/09/2018

In preparing answers to the problem sets, students are encouraged to discuss in groups. Students, however, should write their own answers after consultations within the group.

There will be a mid-term exam (240') which is computer-based. The use of Microsoft Excel and other analytical software packages is expected in this exam.

A final team project will divide students in small groups, each will establish an appraisal model that analyzes a proposed project in terms of economic and financial perspectives.

### Grading

Problem Sets:	30%
Class Discussion:	15%

Mid-term Exam:	25%
Final group project:	30%

Problem sets and other types of submission are due at 08:20 in both hard and soft copies unless otherwise instructed. Hard copies are submitted at the Computer Room, while electronic files are uploaded in the course webpage. See FSPPM Student Handbook for penalties against late submission of assignments.

## Readings

The main reading for the course is case studies written by FSPPM on public investment projects in Vietnam and case studies on public investment in the world written by Harvard Kennedy School and Harvard Business School.

The World Bank Institute, Economic Analysis of Investment Operations: Analytical Tools and Practical Applications, 2002 (Abv: WBI)

Glenn Jenkins and Arnold Harberger, Manual on Cost-Benefit Analysis of Investment Decisions, Harvard Institute for International Development, 1995. (Abv: SHD)

John D. Finnerty, Project Financing: Asset-based Financial Engineering, Wiley Finance, 2007. (Abv: Finnerty).

Richard Brealy, Stewart Myers & Franklin Allen, Principles of Corporate Finance, Mc Graw-Hill, 9<sup>th</sup> edition, 2008.

Robert Pindyck & Daniel Rubinfeld, Microeconomics, Prentice-Hall, 5<sup>th</sup> edition.

In addition, there are case studies and other readings assigned for each class.

# PART I – FINANCIAL ANALYSIS

WEEK 1			
Lecture 01:	Monday, 18 June 2018 (08:30-10:00)		
Introduction to	Project Appraisal		
Readings:	WBI, Chapters 1 & 2. SHD, Chapter 1, 2 and 3: 3.1 & 3.2.		
	WB, Executive Summary of Evaluation Report of Phu My Electricity Project 2.2		
Lecture 02:	Wednesday, 02 June 2018 (08:30-10:00)		
	Cash Flows Discounting and Project Appraisal Criteria		
Readings:	<ul><li>SHD, Chapters 3 (3.3) &amp; 4.</li><li>WBI, Technical Appendix, pp. 289-298.</li><li>Finnerty, Chapter 9.</li></ul>		
Distribution of Pro	Distribution of Problem Set 1, due on Monday, 06 July 2018		
Review 01:	Friday, 22 June 2018 (08:30-10:00)		
	Cash Flows Discounting and Project Appraisal Criteria		

WEEK 2			
Case 01:	Monday, 25 June 2018 (08:30-10:00)		
Project apprais	al based on cash flow method (1)		
Readings:	Kho Son Cement project appraisal: similarities of different cash flow methods, FETP case study.		
Case 01:	Wednesday, 27 June 2018 (08:30-10:00)		
Project apprais	Project appraisal based on cash flow method (2)		
Readings:	Kho Son Cement project appraisal: similarities of different cash flow methods, FETP case study.		
Lecture 03:	Friday, 29 June 2018 (08:30-10:00)		
Financial mod	eling: principles (i)		
Readings:	WBI, Chapter 5, "Financial Analysis and Inflation", pp. 52-56.		
	SHD, Chapter 6: 6.1-6.3		

# WEEK 3

Lecture 04: Monday, 02 July 2018 (08:30-10:00)

Financial mod	deling: principles (ii)
Readings:	SHD, Chapter 6: 6.4.
Case 02:	Wednesday, 04 July 2018 (08:30-10:00)
Financial mod	deling for a bus project by Excel (1)
Readings:	Cho Lon – Go Vap Bus Project, FETP case study
Case 02:	Friday, 06 July 2018 (08:30-10:00)
Financial mod	deling for a bus project by Excel (2)
Readings:	Cho Lon – Go Vap Bus Project, FETP case study
Submission of	f Problem Set 1. Distribution of Problem Set 2, due on Friday, 20 July 2018

WEEK 4	
Lecture 05:	Monday, 09 July 2018 (08:30-10:00)
Sensitivity An	alysis
Readings:	WBI, Chapter 11
	HCMC-Long Thanh, Dau Giay Expressway, FETP Case Study
Lecture 06:	Wednesday, 11 July 2018 (08:30-10:00)
Risk Analysis	
Readings:	WBI, Chapter 11
	HCMC-Long Thanh, Dau Giay Expressway, FETP Case Study
Review 02:	Friday, 13 July 2018 (08:30-10:00)
Sensitivity ana	lysis practice and simulation by Excel
WEEK 5	
Case 03:	Monday, 16 July 2018 (08:30-10:00)
Practical finan	cial modeling: Tate & Lyle Nghe An Sugar Factory Project (1)
Readings:	Nghe An Tate & Lyle Sugar Company, HBS Case Study
Submission of	Problem Set 2
Case 03:	Wednesday, 18 July 2018 (08:30-10:00) Nguyen Xuan Thanh
Practical finan	cial modeling: Tate & Lyle Nghe An Sugar Factory Project (2)
Readings:	Nghe An Tate & Lyle Sugar Company, HBS Case Study

## Review 03:

# Friday, 20 July 2018 (08:30-10:00)

Mid-term review

### WEEK 6

**Reading Week/Group Project** 

## WEEK 7

Mid-term exam: Friday, 03 Aug 2018 (08:00-12:00)

# PART II – ECONOMIC ANALYSIS

WEEK 8			
Lecture 07:	Monday, 06 Aug 2018 (08:30-10:00)		
Cost and Ber	nefit Analysis in Undistorted Markets		
Readings:	SHD, Chapter 7&8		
	WBI, Technical Appendix, Conceptual Framework, pp. 299-302		
Distribution of P	Distribution of Problem Set 3, due on Monday, 20 August 2018		
Lecture 08:	Wednesday, 05 Aug 2018 (08:30-10:00)		
Cost and Ber	nefit Analysis in Distorted Markets		
Readings:	WBI, Technical Appendix, Conceptual Framework, pp. 302-304		
	SHD, Chapter 9		
Review 04:	Friday, 10 Aug 2018 (08:30-10:00)		
Cost and Ber	nefit Analysis in Undistorted and Distorted Markets		

WEEK 9		
Lecture 09:	Monday, 13 Aug 2018 (08:30-10:00)	
Estimating e	conomic prices of water and electricity	
Readings:	Thu Duc Water BOT, FETP Case Study	

	DPE Power, FETP Case Study
Lecture 10:	Wednesday, 15 Aug 2018 (08:30-10:00)
Economic Val	luation of Foreign Trade Goods and Economic Exchange Rate
Readings:	WBI, Technical Appendix, pp. 305-319
	SHD, Chapter 10
Case 04:	Friday, 12 Aug 2018 (08:30-10:00)
Economic App	praisal of An Nhon Steel Mill (1)
Readings:	An Nhon Steel Mill, FETP Case Study.
WEEK 10	
Case 04:	Monday, 20 Aug 2018 (08:30-10:00)
Economic App	praisal of An Nhon Steel Mill (2)
Readings:	An Nhon Steel Mill, FETP Case Study.
Submission of	<sup>2</sup> Problem Set 3. Distribution of Problem Set 4, due on Friday, 27 September 2018
Lecture 11:	Wednesday, 22 Aug 2018 (08:30-10:00)
Economic Cos	st of Capital
Readings:	WBI, Technical Appendix, pp. 319-324 SHD, Chapter 12.
Lecture 12:	Friday, 24 Aug 2018 (08:30-10:00)
Economic Cos	st of Labor and Land
Readings:	WBI, Chapter 5, pp. 70-73; Technical Appendix, pp. 324-328 SHD, Chapter 13.
WEEK 11	

WEEK 11	
Case 05:	Monday, 27 Aug 2018 (08:30-10:00)
Economic Eva	luation of HCM-Long Thanh-Dau Giay Expressway
Readings:	HCM-Long Thanh-Dau Giay Expressway, FETP Case Study
Case 05:	Wednesday, 29 Aug 2018 (08:30-10:00)
Economic Evaluation of HCM-Long Thanh-Dau Giay Expressway	
Readings:	HCM-Long Thanh-Dau Giay Expressway, FETP Case Study

Lecture 13:	Friday, 31 Aug 2018 (08:30-10:00)	
Analysis of St	akeholders' impacts	
Readings:	SHD, Chapter 14	
	WBI, Chapter 12	
WEEK 12		
Case 06:	Wednesday, 05 September 2018 (08:30-10:00)	
Evaluating the Impact of Nghe An Sugar Project on its Stakeholders		
Readings:	Nghe An Tate & Lyle Sugar Company, HBS Case Study.	
Review 05:	Friday, 07 September 2018 (08:30-10:00)	
Final Exam Review		
Submission of Problem Set 4.		
WEEK 13		
Reading Week/Group Project		

# **WEEK 14**

Group project report: Friday, 8:20 am, 21 September 2018