



# Virtual Exchange Program (Additional Courses)

Spring Semester, 2022

ASIA UNIVERSITY



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## 26. \*Advanced Econometrics

Department: **Business Administration**

Day of the Week: **Tuesday**

Course Time: **13:10 -16:00 (Taiwan time)**

Grades: **Master/Doctoral Students**

Credits: **3**

Teaching Mode: **EMI, synchronous, Tronclass, Microsoft Teams**

Course fee: **US\$ 250**

Instructor: **Prof. Shey-Huei Sheu**

E-mail: **[shsheu@asia.edu.tw](mailto:shsheu@asia.edu.tw)**

**\*This course is fee-paying, and students registered for this course each needs to pay US\$ 250 for the tuition fee.**

### About the Course

Through theoretical knowledge and practical examples, this course introduces the theory and methods of econometrics, and uses financial case studies to help students understand how to use these technologies in relevant financial environments.

### The course features

Through financial case analysis and practical exercises, students will be able to use the econometric model flexibly. Improve the basic ability of students' economic analysis through lectures, so that students can better understand when reading related literature, and can be used flexibly when writing academic articles; through case analysis, students are able to explain and understand economic policies and applications.

In accordance with designed course content set in teaching targets :

1. Learn how to model economic theories.
2. Better equipped to conduct research on economic topics

## Weekly Syllabus

Week	Contents	Note
1	Ch.1 - Introduction	
2	Ch.1 - Introduction	
3	Ch.2 - Mathematical and Statistical Foundations	
4	Ch.2 - Mathematical and Statistical Foundations	
5	Ch.2 - Mathematical and Statistical Foundations	
6	Ch.3 - A brief overview of the classical linear regression model	
7	Ch.3 - A brief overview of the classical linear regression model	
8	Ch.3 - A brief overview of the classical linear regression model	
<b>9</b>	<b>Mid-term Exam</b>	
10	Ch.4 - Further development and analysis of the classical linear regression model	
11	Ch.4 - Further development and analysis of the classical linear regression model	
12	Ch.5 - Classical linear regression model assumptions and diagnostics	
13	Ch.5 - Classical linear regression model assumptions and diagnostics	
14	Ch.5 - Classical linear regression model assumptions and diagnostics	
15	Ch.6 - Univariate time series modelling and forecasting	
16	Ch.6 - Univariate time series modelling and forecasting	
17	Ch.6 - Univariate time series modelling and forecasting	
<b>18</b>	<b>Final Exam</b>	

## 27. \*Real Option

Department: **Finance**

Week of Day: **Monday**

Course Time: **10:10-13:00 (Taiwan time)**

Grades: **Undergraduate**

Credits: **3**

Teaching Mode: **EMI, synchronous, Tronclass, Microsoft Teams**

Course fee: **US\$ 250**

Instructor: **Prof. Arron Wong, Dr. Chang Chun-Ping**

E-mail: **wong@asia.edu.tw, changjp@asia.edu.tw**

**\*This course is fee-paying, and students registered for this course each needs to pay US\$ 250 for the tuition fee.**

### About the Course

This course considers the application of option concepts from finance to valuing real assets and investment opportunities. The focus is on using real options theory and methodology to determine to the optimal timing of investment expenditures characterized by uncertainty and irreversibility. The structure of this course differs from others in that the material is presented in a logical progression from the simple to the complex, necessarily implying that equilibrium models comes first, real option theory second and applications to analysis last. Real Asset pricing has expanded, matured and assumed increasing importance in both research and application. Strategy as a Portfolio of Real Options shows how companies can plot their strategies to help optimally sequence and time investments and provides a straightforward overview of the topic and shows how real options can be valued using both the binomial method and the Black-Scholes pricing model.

### The Course Features

The traditional investment model based NPV criteria is the vital key to decision making, which is often used to analyze scenarios of ignoring “option value in flexibility” for real asset prices. Option theory emphasizes flexibility and treats it correctly (NPV rule often doesn’t.). The theory helps to focus attention on nature of uncertainty and its implications. Managers can more accurately value the flexibility they have to delay or change investment decisions in growth projects depending on how previous stages or external conditions evolve. The course demonstrates how managers use the simpler binomial model instead of the Black-Scholes model to incorporate real options into their capital budgeting process. Not only can a binomial model be adjusted to closely approximate the project, the authors argue, but the exercise of laying out an event or decision tree can also help managers see the optimal point at which to exercise the project option. The contents of course further focus on how to value a series of activities in applications to acquisition, capital structure, tax, asymmetric information, externality and competition using real options.



## Weekly Syllabus

Week	Contents	Teaching Hours
1	Introduction to the course	3
2	Dynamic Process understanding Risk and Return	3
3	Random Variables and Expectation	3
4	Financial Investment	3
5	Real Investment under uncertainty	3
6	Real Option	3
7	Simultaneous Real Option	3
8	Sequential Real Option	3
9	<b>Mid-term Report</b>	<b>3</b>
10	Real Option with Capital Structure	3
11	Real Option with Tax	3
12	Real Option with Asymmetric Information	3
13	Real Option with Competition	3
14	Real Option with Externality	3
15	Real Option with Acquisition	3
16	Presentation (I)	3
17	Presentation (II)	3
18	<b>Final Report</b>	<b>3</b>
<b>Total</b>		<b>54</b>

## 28. Auditing (II)

**Department:** Accounting and Information Systems

**Day of the Week:** Tuesday

**Course Time:** 9:10-12:00 (Taiwan time)

**Grades:** Undergraduate

**Credits:** 3

**Teaching Mode:** EMI, synchronous, Tronclass, Microsoft Teams

**Course fee:** US\$ 250 (Partner university students can waive this charge.)

**Instructor:** Dr. Yuh-Jiuan Parng, Chih-Cheng Lee

**E-mail:** [melodyp@asia.edu.tw](mailto:melodyp@asia.edu.tw)

### About the course

Continuing Auditing (I) the basic concept of Auditing, Auditing (II) will move to more practical knowledge of the audit planning, the audit procedures, and internal control. Furthermore, critical updated Auditing issues, like Forensic Accounting, the cases of Financial Statements and asset misappropriation will be discussed. Finally, getting into the IT area, the application of IT skill in Auditing will also be introduced.

### The course features

Besides the Auditing knowledge and professional skills, this course puts more focus on the case study. The course content also involves the updated IT applications which will provide great help to step into the Auditing industry.

## Weekly Syllabus

Week	Contents	Note
1	Introduction to forensic accounting	
2	Forensic accounting case discussion	
3	National Holiday	
4	Financial statement fraud	
5	Financial statement fraud	
6	Asset misappropriation	
7	Asset misappropriation	
8	National Holiday	
<b>9</b>	<b>Mid-term Report</b>	
10	IT Audit	
11	IT Audit	
12	Audit Planning: Understanding the client, Assessing risks, and Responding	
13	Audit Planning: Understanding the client, Assessing risks, and Responding	
14	Internal Control	
15	Internal Control	
16	Audit sampling	
17	Audit sampling	
<b>18</b>	<b>Final Exam</b>	