

經濟學系碩專班課程綱要 Department of Economics (EMBA Program)

| 課程名稱 | 中文簡介 | 英文簡介 |
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| <p><u>個體經濟應用分析</u> APPLIED MICROECONOMICS ANALYSIS 【WEC84901】</p> | <p>碩專一 必 (2-0) 本課程著重培養學生具備基礎個體經濟應用分析的視野與能力。課程主要以數理分析與賽局理論探討個體經濟上的重要應用研究。</p> | <p>EMBA Program Required (2-0) This course studies some of the fundamental concepts in microeconomics. It equips students with the basic tools and methods of analysis used in economic reasoning. Upon completion of the course, students should be able to understand the model-building methodology of microeconomics and learn some applied microeconomic analysis skills.</p> |
| <p><u>總體經濟應用分析</u> APPLIED MACROECONOMICS ANALYSIS 【WEC95601】</p> | <p>碩專一 必 (0-2) 本課程旨在深入地介紹各種總體經濟理論之應用模式及課題，以培育研究生之總體經濟應用能力。課程設計重點在引導學生思考如何將總體經濟理論應用在不同經濟課題，這些課題包括經濟發展與成長、金融與貨幣、國際經濟及金融、財政、或其他總體經濟領域上之理論應用及政策分析。</p> | <p>EMBA Program Required (0-2) This course attempts to introduce various applied models and issues related to Macroeconomics theory and to cultivate graduate students' research ability in applied Macroeconomics. The course is designed to show students how to apply Macroeconomic theory to various empirical economic issues. Topics of Macroeconomic application cover economic development and growth, banking finance and monetary policy, international economics and finance, public finance or other relevant applications and policies related to Macroeconomic fields.</p> |
| <p><u>計量經濟應用分析</u> APPLIED ECONOMETRICS ANALYSIS 【WEC85001】</p> | <p>碩專一 必 (2-0) 本科目旨在介紹計量經濟方法分析理論，使學生了解如何將計量經濟方法運用於產業。內容包</p> | <p>EMBA Program Required (2-0) The purpose of this course is to introduce the basic econometrics theories concepts and quantitative</p> |

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| | 含簡單線性迴歸模型,多元迴歸模型, 異質變異,自我相關,追蹤資料,質化分與受限被解釋變數模型 | analytical methods to industrial organization. This objective of the course is to show students how analyzes econometrics theories and applies econometrics methods for the industrial analysis. The contents include Two-variable regression, multiple regression, multi-collinearity, Heteroscedasticity, autocorrelation , panel data and qualitative response regression model. |
| <u>統計分析</u> STATISTICAL ANALYSIS 【WEC67001】 | 碩&碩專 選 (1-0) 此課程複習及加強一些線性代數與統計定理,使同學對碩一上的計量經濟學有足夠的基礎。課程內容包括: 線性代數的複習(向量和矩陣)及統計複習。 | Master & EMBA program Elective (1-0) This course tries to help the students understand some theories of Linear Algebra and Statistics which are the necessary background for Econometrics. It covers Review of some statistics used in Econometrics. Review of linear algebra including vectors and matrices. |
| <u>管理經濟學</u> MANAGERIAL ECONOMICS 【WEC95801】 | 碩專 選 (2-0) 本課程由管理者面臨之挑戰開始,誘導學生應用個體經濟學之知識技能來擬定最適方案與策略。主要的探討項目包含市場供需及其預測、不同市場型態下企業之最適行為、外匯及其效果、價格策略等,以令學者學以致用,成功解決不同之挑戰。 | EMBA Program Elective (2-0) Starting with managerial challenges, this course encourages students to think over appropriate solutions and strategies from the perspective of microeconomics and its analytical techniques. Major topics covered in the course include market demand and supply and their prediction, business best behaviors in various markets, variation in foreign exchange and its influences on management, price strategies and so on. It is hoped that students will be able to put into practice what has been learned from this class as well |

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| | | as to cope with the above challenges successfully. |
| 財務經濟 FINANCIAL ECONOMICS 【WEC95501】 | 碩專 選 (2-0) 探討現代企業財務經理人 (financial manager) 所面臨的投資決策 (investment decision) 與融資決策 (financing decision) 的諸多課題。內容重在觀念與理論的闡明，以做為日後財務研究之基礎。除一般財務管理的內容外，將包括資本市場行為、運作及企業經濟行為有關的內容。本課程將針對不同主題，要求學生到 TEJ 資料庫抓取資料，進行資料分析的實作。 | EMBA Program Elective (2-0) The course covers the issues on modern corporate finance. It mainly examines the major tasks faced by the modern corporation's financial manager: investment decision and financing decisions. |
| 金融科技導論 INTRODUCTION TO FINTECH 【MEC67801】 | 碩&碩專 選 (0-3) 本課程介紹破壞性創新對金融服務業的衝擊，與對金融消費者金融活動型態的改變。如同世界經濟論壇 (WEF) 指出，未來金融服務的六大領域將受到 FinTech 衝擊。無現金社會等新型態生活、機器人理財等新服務工具將是未來層出不窮新變化的開端，去仲介化的金融架構、去中心化的交易服務，都將是未來金融社會的常態。本課程除了對 FinTech 做基本介紹，也對其未來趨勢、發展限制、商機所在、產業衝擊等主題做相關的講授。 | Master & EMBA program Elective (0-3) FinTech is an umbrella name of the disruptive innovations in the financial industry. The existing financial services and consumer behaviors have been experiencing shocks from FinTech. According to the WEF (World Economic Forum) in June 2015, FinTech has redefined and reshaped a new financial ecosystem with 6 functions and 11 sets of innovations. This course will provide students with most updated knowledge about FinTech. |
| 投資學專題 SEMINAR IN THE INVESTMENT 【WEC85201】 | 碩專 選 (0-2) 本課程目的在於幫助學生瞭解現代投資理論與其對投資管理的應用。內容涵蓋投資組合與衍生性金融商品。除了介紹基本理論外，亦引導學生將理論應用於實務上。 | EMBA Program Elective (0-2) This course provides a basic understanding of modern investment theory and its application to investment management. The topics cover portfolio managements and financial derivatives. When students finish this course, they are expected |

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| | | to have a thorough understanding of theoretical issues and an ability to link theory to practice. |
| <u>管理經濟專題</u> <u>TOPICS IN MANAGERIAL ECONOMICS</u> 【MEC68101】 | 碩&碩專 選 (0-2) 本課程從介紹管理控制比模型開始，再講述生產力，規模經濟，中小企業，內生技術進步，技術移轉與擴散，創新，以及廠商的訂價行為。教材多為個人過去發表的論文及產業組織教科書。 | Master & EMBA program Elective (0-2) This course differs from other general Managerial Economics courses in two ways. First, it will start from presenting a managerial control ratio model that can be applied to analyze any real company. Then it will cover the areas in productivity, economies of scale, small-and-medium sized enterprises, endogenous technical progress, technology transfer and diffusion, innovation, and oligopoly pricing. None of these topics are adequately discussed, or even mentioned in existing ME textbooks. Second, the teaching materials are all from the lecture's publications except the last two topics. |
| <u>資料分析與應用</u> <u>MODELS FOR DATA ANALYSIS</u> 【WEC95701】 | 碩&碩專 選 (0-2) 本課程將教授經濟數據的計量分析方法及估計技術，旨在協助學生了解分析模型的運作原理、應用方法及其限制；而所教授之分析模型的應用涵蓋時間序列資料、橫斷面資料以及面板數據資料(Panel Data)。除了能夠習得計量經濟學的現代語言外，透過本課程，學生將能夠靈活運用所學之數據分析技術。 | Master & EMBA program Elective (0-2) Students will learn the methodology behind different estimation techniques used in analyzing econometric data. Our goal is to understand how models work, their use and their limitations. Students will also learn techniques applied to data beyond time-series, i.e. panel data and cross-sectional data. In the end, students will have a good feeling about the modern language of econometrics and will be able to apply the techniques learnt. |

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| 產業分析 INDUSTRY ANALYSIS 【WEC93201】 | 碩專 選 (2-0) 本科目旨在介紹產業經濟基本理論，產業分析之基本計量方法、台灣主要產業分析、以及中國大陸主要產業分析。以使學生瞭解及掌握產業經濟基本理論及分析方法，並對台灣及中國大陸當前的主要產業有所瞭解，並具有理論分析能力。 | EMBA Program Elective (2-0) The Analysis of Industrial Economics consists of the following content: basic theory of industrial economics, basic econometric tools for industrial analysis, the analysis of Taiwan's main industries, and the analysis of China's main industries. This course will train students to control the basic theory and statistical tools for industrial organization. Through understanding the real development of Taiwan's and China's primary industries, students will be able to use theoretical tools to do basic industrial analysis. |
| 新興市場產業發展專題 ISSUES ON INDUSTRIAL DEVELOPMENT IN EMERGING MARKETS 【MEC67201】 | 碩&碩專 選 (0-1) 新興經濟體在世界經濟中的地位日形重要，而其產業結構也歷經重大改變。對資源貧瘠新興國家而言，典型的發展步驟是從消費品的進口替代開始，到此類產品的出口，到此類產品上游原料和零組件的進口替代及出口擴張。在此過程中，國際競爭激烈，最後能留在供應鍊上，或創造出本身價值鍊者，才能在經濟上存活。本課程將探討這個過程，並研析未來的可能發展。 | Master & EMBA program Elective (0-1) Emerging economies now occupy an ever larger share of the world economy, and have undergone important changes in its structure of industries. For resource-poor emerging countries, a typical process of development begins with import substitution (IS) of consumer goods, then moves on to the export of such goods, and finally to the IS and export of intermediate materials or components. During the process, there is intensive international competition. Only those who managed to stay on the supply chain, or could create their own value chains could survive. This course will investigate the process and analyze what might happen in the future. |
| 經濟學方法論 ECONOMIC METHODOLOGY | 碩專 選 (0-2) 有異於傳統經濟學集中在如何 | Master & EMBA & Ph. D. program Elective (0-2) |

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| 【WEC84701】 | <p>分析日常經濟問題之做法(譬如討論比較靜態分析法、迴歸分析法等)，本科目旨在探討研究經濟議題時所涉及的基本事項，包括所遵循之哲學觀，研究程序與推論方法，有無其他可採行之方法等，希望藉此幫助學者在了解之餘，亦有益其建立更妥當的理論。基此，本科目討論知識與遍及性，亦根據這些來評鑑主流經濟理論，特別是其解釋與預測之功能。由於主流經濟學在這些項目上遭遇諸多問題，本科目亦討論新興的之研究方法論，譬如批判實在主義與經濟修辭學，以利學者具備多樣化的分析技能，並利將之應用於日常經濟問題之研究。</p> | <p>Contrary to mainstream economics that centers on the day-to-day economic analytical methods, e.g. comparative static analysis and regression analysis, we focus on the fundamental issues of doing research and begin this course by introducing economic philosophy, inference methods, and research procedures used by economists. We then discuss the criteria of knowledge and ubiquity, the basic characteristics of scientific theory, and evaluate the existing economic theories, particularly on the features of explanation and prediction. As mainstream approach is facing great difficulty on this account, this course also covers the emerging (or the newly developed) research approaches, e.g. critical realism and economic rhetoric, in addition to the existing ones.</p> |
| <u>計量經濟之軟體應用</u> ECONOMETRICS AND SOFTWARE APPLICATIONS 【WEC93801】 | <p>碩專 選 (3-0)</p> <p>本課程旨在介紹台灣主要的資料庫及經濟學中常用的電腦軟體。教導如何結合資料庫、電腦軟體和經濟理論，以撰寫研究報告。使用教材為最新的中英文專書。</p> | <p>EMBA Program Elective (3-0)</p> <p>This course introduces how to use key data banks in Taiwan and how to operate important software for economic analysis. It intends to train students to integrate data searching, computer operating, and economic theories to write a good thesis. The text book will be one of updated English textbook.</p> |
| <u>銀行經營專題研討</u> SEMINAR IN BANKING MANAGEMENT 【WEC93101】 | <p>碩&碩專 選 (2-0)</p> <p>(1) 討論銀行的功能及提供的服務</p> <p>(2) 美國聯邦準備銀行制度及美國政府如何管理銀行</p> | <p>Master & EMBA Program Elective (2-0)</p> <p>(1) An Overview of Banks and Their Services</p> <p>(2) Organizational Structure of the</p> |

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| | (3) 金融控股法成立的背景及金控公司的近况 (4) 金融改造及台灣銀行業界的變革 (5) 討論銀行消費金融的最新發展 (6) 銀行及非銀行競爭產品的新趨向 (7) 法人金融發展的最新狀況 (8) 銀行國際化及海外市場發展的介紹 (9) 銀行授信風險的管理及方法 (10) 信用評等評分制度的討論 (11) 資產負債管理的說明及討論 (12) 銀行財務報表的分析及研究 (13) 投資銀行如何投資金融市場及資本市場 (14) 利用評等工具對銀行進行評等評分 (15) 資本適足率及新巴賽爾資本協定 | Federal Reserve System & The Impact of Government Policy and Regulation on Banking (3) The Background of the Financial Holding Act & the Development of Financial Holding Companies (4) Re-Engineering of the Banking Industry and Its Impact on the Banks in Taiwan (5) To Discuss the Development of the Consumer Banking (6) The Trend of the Competitive Products Between Banks and Non-banks (7) The development of Corporate Banking (8) The Internationalization of the Banks and the Introduction of the Development of the Overseas Market (9) Credit Risk Management (10) Measuring and Evaluating Bank Performance (11) Asset-Liability Management Techniques (12) Analysis of the Financial Statements of a Bank (13) Investment Banks' Techniques in the Financial and Capital Markets (14) Make Use of CAMEL to Evaluate a Bank (15) Managing the Bank's Investment Portfolio and Liquidity Position & BASEL 2 |
| <u>總體經濟金融新思維</u> <u>NEW THINKING ON</u> <u>MACROECONOMICS AND</u> <u>FINANCE</u> | 碩&碩專 選 (2-0) 讓學生瞭解： 1、全球金融危機前，主流的總體經濟金融思維，以及其所存在 | Master & EMBA program Elective (2-0) To help students understand the following topics : |

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| 【WEC85301】 | <p>的問題。</p> <p>2、全球金融危機發生的原因、主要央行的因應對策(尤其是非傳統性貨幣政策)，以及國際間進行金融管制改革的相關內容。</p> <p>3、後全球金融危機的新思維，以及尚在發展的總體經濟金融理論，特別是行為經濟學、神經經濟學的發展與應用。</p> | <p>The mainstream thinking and problems of macroeconomics and finance before the outbreak of the global financial crisis.</p> <p>Reasons that caused the global financial crisis and responsive measures taken by major central banks around the world, especially the unconventional monetary policy, as well as financial regulatory reforms pursued in the international community.</p> <p>New thinking in a post-global financial crisis era, and the development in emerging areas, such as behavioral economics and neuroeconomics, and their applications.</p> |
| <u>應用經濟與 R 語言</u> APPLIED ECONOMICS WITH R 【WEC84801】 | <p>碩專 選 (2-0)</p> <p>本課程教導學生使用 R 程式語言來完成簡單的計量經濟模型計算。善用 R 對於陣列資料處理的優勢來對資料加工或運算，最終採用 R 所提供的套件來完成簡單的模型計算。</p> | <p>EMBA Program Elective (2-0)</p> <p>This course uses R language to practice econometrics model.</p> <p>Students will be required to practice data processing and learn how to complete econometrics models such as time series and linear regression models with R language.</p> |
| <u>計算智慧與網路金融科技</u> COMPUTATIONAL INTELLIGENCE AND INTERNET FINANCIAL TECHNOLOGY 【MEC67901】 | <p>碩&碩專&博 選 (3-0)</p> <p>凡是研究現代經濟學的同學們除了需具備有關經濟學的理論基礎外，利用電腦工具以統計學與計算智慧分析網路金融巨量資料，將是未來的主流趨勢。本課程將配合網路科技的發展趨勢，強化金融科技的應用需求，使同學們得以學以致用，其中包括程式設計並與網路結合。隨著網路技術的發展趨勢，本課程除將循序漸進地介紹各種網</p> | <p>Master & EMBA & Ph. D. program Elective (3-0)</p> <p>In addition to learning the theoretical knowledge of economics, all students who study modern economics should use computer tools to analyze the data of online finance by means of statistics and computational intelligence, it will be the mainstream trend in the future. This course will be in line with the development trend of network technology, strengthen the</p> |

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| | <p>路軟體外，並將結合我們獨創的計算智慧方法-果蠅演算法 (FOA)及領導者與追隨者 (LFOA)演算法，這將大大增強傳統計量方法的效率。本課程將使學生都能夠學習到一些電腦編程知識和軟件應用（如 R，Python，Matlab,Tableu 等）並得以瞭解如何利用計算智慧的方法來解決各種複雜的即時經濟與金融問題。</p> | <p>application of financial technology needs, so that students can apply their knowledge, including the design and integration with the network by software applications.</p> <p>Therefore, with the development trend of network technology, this course will be a step-by-step approach to the various network software, and will briefly introduce our Innovative Computational Intelligence methods - Fruit Fly Algorithm (FOA) and Leader and Followers (LFOA) algorithm, which will greatly enhance the efficiency of traditional econometrics methods. This course will enable students to learn some computer programming knowledge and software applications (such as R, Python, Matlab, Tableau, etc.) and also to learn how to use computational intelligence to solve a variety of complex economic and financial issues.</p> |
| <p>產業績效評估 <u>PERFORMANCE EVALUATION FOR BUSINESS AND INDUSTRY</u> 【WEC95901】</p> | <p>碩專 選 (0-2)</p> <p>自企業個體、產業乃至國家間之績效表現，均能利用生產力與生產效率模式加以評估；利用此模式除了可衡量經濟學之技術變動、分配效率外，管理學所重視之廠商間管理效率差異亦能衡量而得。本課程將介紹多種衡量生產力與效率之績效評估模式，同時，亦將注重實證研究用電腦程式之操作及結果之解釋與分析。</p> | <p>EMBA Program Elective (0-2)</p> <p>To evaluate performance of business firms, industries, and countries, the productivity and efficiency models are well known as effective tools. The models can not only measure the technical change and allocation efficiency in production economics, but also assess the management efficiency which is much appreciated by management sciences. This course will introduce several major assessment models for measuring the</p> |

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| | | productivity and efficiency of decision making units. We also ask students to conduct empirical research using computer and statistical packages. |
| <p><u>財務軟體應用</u> <u>SOFTWARE APPLICATIONS IN FINANCE</u> 【WEC85401】</p> | <p>碩&碩專&博 選 (0-2) 本課程除簡單介紹有關財務與投資的知識外，主要協助同學認識與建構各種軟體(如 R, Python, Matlab、Excel VBA 等)在財務管理與投資學的應用。內容有證券風險；終值、現值、年金現值等；K 線圖或各種技術指標(如 KD、RSI、MACD、乖離率、DMI、OBV 等) 等交易策略；債券的風險（如存續期間）；投資組合理論（如效率前緣）；證券市場線、資本資產訂價、投資組合績效（夏普指標、崔納指標、詹森指標、VaR 等）；期貨的持有成本；選擇權（買權、賣權或 Black-Scholes 評價等。</p> | <p>Master & EMBA & Ph. D. program Elective (0-2) People, who are living in the information age of the 21st century, should require the knowledge of investment and finance, but how to use computers programs and software efficiently is obviously particularly important. This course not only introduces how to build rigorous financial and investment models, but also independently provides the concise computer and statistical tools for prediction, classification, and decision-making to analyze the actual data of financial and investment issues. This course introduces many of the relevant financial and investment software (such as R, Python, Matlab, Excel VBA, etc.) to assist the students to learn the necessary knowledge in financial management and investment and to construct a variety of software applications. It analyzes securities risk, final value, present value, annuity of cash flow, K-line charts or a variety of technical indicators (eg, KD, RSI, MACD, BIAS, DMI, OBV, etc.) trading strategies, risk of bonds, portfolio theory, securities market line, capital asset pricing, portfolio performance (Sharpe Index, Treynor, Jensen</p> |

| 課程名稱 | 中文簡介 | 英文簡介 |
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| | | indicators, VaR, etc.), futures holding costs, call option, put option, and Black-Scholes formula etc. |
| <p>亞洲經濟研究 ASIAN ECONOMIC STUDY 【MEC76901】</p> | <p>碩&碩專 選(0-3) 本課程以訓練學生具備國際經濟知識，並提供亞洲國家學習活動經驗為目標。本課程由三部分之學習活動所組成。</p> <p>一、海外活動行前之教學。此部分課程著重訓練學生參於海外活動時所應具備之基礎能力。</p> <p>二、海外實地學習活動。此部分課程將帶領學生至海外進行相關之國際經濟學習研究活動。</p> <p>三、海外活動之心得與實證討論。</p> | <p>Master & EMBA. Program Elective (0-3) The course aims to equip students with basic economic knowledge of Asian regions, and provides an overseas learning experience for them. The course is composed of three parts:</p> <ol style="list-style-type: none"> 1. A pre-trip preparation course. 2. A short-term overseas study program. 3. A result report after participating in the overseas study program. |
| <p>財經政策與論壇 FINANCIAL AND ECONOMIC POLICY FORUM 【WEM05601】</p> | <p>碩專 選(1-0) 本課程將邀請國內財經產官學專精人士，就當前台灣面臨的國際經濟情勢及財經重大課題，提出精闢的分析，以期學員了解財經決策之多面向及複雜性，學員除了了解政策決定之重要因子外，並學習如何分析財經政策對產業、企業及大眾之影響。</p> | <p>EMBA. Program Elective (1-0) This course invites experts in finance and economics from industry, government and university sectors to provide systematic and decent analyses on international economic environment and important financial and economic policies contemporarily confronted in Taiwan. The students are expected to understand the multiple dimensions and complication of decision making to be considered in these important financial and economic policies. They are also explored the key determinants behind these policies and learn how to analyze the impacts of these policies on industries, business firms and general public.</p> |