

Master of Science

Managerial Economics

This course teaches how to apply microeconomic theories and applications to related managerial fields, including demand analyses, production and cost analyses, and strategy analyses. The course starts with an introduction on the nature, scope, and methods of managerial economics. Then theory of the firm is introduced. Demand analyses include demand theory and demand estimation. Production theory, cost theory, and cost estimation follows. Strategy analysis includes several parts: market structure and pricing, game theory, pricing strategy, and investment analyses. Finally, government and managerial policy analyses conclude the course.

Management Science

This course provides basic skills in quantitative modeling, using Excel as the instructional medium. Particularly, the course teaches model building, optimization, and Monte Carlo simulation. The emphasis is on model formulation, and analysis and interpretation of the results. The applications covered will draw from several areas including operations, finance and marketing. Examples include production and capacity planning, investment management, and portfolio optimization.

Applied Statistics

Various statistical methods are introduced including estimation, testing, analysis of variance, regression analysis and simple experimental design. Students can learn how to analyzing data for information in various situations.

Business Research Methods

This course involves the knowledge regarding doing a research work. Quantitatively and qualitatively, research methods provide vehicles to probe business reality. Both are supplementary for each other.

Consumer Research

The field of consumer research developed as an extension of the field of marketing research to enable marketers to predict how consumers would react in the marketplace and to understand the reasons they made the purchase decisions they did. Consumer researchers today use two different types of research methodology to study consumer behavior - quantitative research and qualitative research. Quantitative research is descriptive in nature, and is used by researchers to understand the effects of various promotional inputs on the consumer, thus enabling marketers to “predict” consumer

behavior. Qualitative research methods consist of depth interviews, focus groups, metaphor analysis, collage research, and projective techniques. This course contains a variety of consumer research methods to enhance student learning and facilitate the application of consumer behavior concepts to marketing applications.

Strategy on Market and Entrepreneurial Organization

The course is designed to explore the effective principle in management and organizing on business. It will conclude four main topics in business: general management, human kinds and behavior, problem and decision, and strategy formulation and organizational learning. We conduct the course with the class elaboration on the effective management of case company. The lecturer will, after all, summarize what all members (including lecturer himself and students) come to an agreement.

Supply Chain Management

Fierce competition in today's global markets has forced manufacturing enterprises to invest heavily in logistics systems. In such systems, items are produced at one or more factories, shipped to warehouses for intermediate storage, and then shipped to retailers. Consequently, to reduce cost and improve service levels, logistics strategies must account for the interactions of the various levels in the supply chain. In this course we will review state of the art planning models and practical tools for inventory control, distribution management and multi-plant coordination. The emphasis is on exploring robust tools and off the shelf software packages that have been proven effective in many industries. In particular we address issues such as: optimal design of the logistics network, adequate safety stock levels and the risk pooling concept, Integrating Decision Support Systems (DSS) in the management of the supply chain, the need for Enterprise Resource Planning (ERP) and the integration of DSS and ERP, cost effective distribution strategies, and strategic alliances and outsourcing.

Project Management

Application of project management techniques can significantly improve an organization's delivery performance. This course is designed to equip students with necessary project management techniques so that they will be able to manage project effectively. The course follows the project life cycle and examines tools and techniques that are proven effective in managing projects. Planning, budgeting, organizing, scheduling, allocating, monitoring, evaluating and terminating are critical stages along a project life cycle. In addition to class lectures and discussions, case studies designed for exploring each stage's insights in practice will be extensively

used. Students will also be asked to do and present an independent semester project by applying various techniques learned to a real-world project that he/she is associated with.

Quality Management

The class includes the teaching of idea and introduction of quality, QC seven and new seven, cause effect matrix, benchmark, failure mode effect and analysis, gemba improvement, measurement system analysis, quality functional deployment, six sigma management, robust parameter design. Each class at one special topic will be given.

Technology Management

The aim of this course is to provide a solid grounding to students interested in managing various aspects of the innovation process within organizations. The course is divided into three parts. The first part of the semester focuses mainly on analytic and strategic frameworks for managing the technological innovation process. This segment examines patterns of technological change and their impacts, planning for technological transitions, means for capturing economic benefits from innovation, and planning of innovation projects over time. The second half of the course examines the organizational issues involved in innovating and in implementing technological innovations. These issues include management of teams and partnerships, learning within and across projects, and killing innovation projects, technological entrepreneurship, and resistance to innovation. The third part covers the patent analysis

Financial Management

Students taking this course will learn to analyze modern finance theory and apply application on corporate financial management. Among other topics, the student will learn the time value of money, how to value stocks and bonds, how to analyze and forecast financial statements, and how to decide which capital investments to make. Time permitting; the student will also learn theories of how firms set dividend policies, capital structure, cost of capital, and working capital policies.

Econometrics

This class represents an econometrics approach to understand elementary econometrics. Its aim is to arm the student with useful tools that will facilitate economic and financial analyses. The course covers many topics such as linear regression, the classical model, multicollinearity, heteroscedasticity, autocorrelation, model specification and diagnostic testing, time-series models, dummy dependent

variable techniques, simultaneous equations in an understandable format In addition, the course emphasizes real-world examples and exercises, and the student needs to practice using one of the statistics software.

Theory of Financial Accounting

The primary objective of the course is to improve students' understanding of current areas of research in financial accounting, and to help them to formulate viable research topics. Thus, this course includes several financial accounting research topics. The first topic is information asymmetry and demanding of financial reporting. In the second topic, I select voluntary disclosure incentives and issues. The third topic is current important issues related to CEO compensation. In the final two topics, I select earnings management and earnings quality papers.

International Financial Management

This course extends the principles of financial management to the international context. Students learn how to evaluate the effect of currency changes on the competitive position of firms and investment valuations. Additionally, Students will explore international risk management principles, exam long-term risk management strategies, analyze international capital structure issues and implications.

Financial Risk Management

This course would firstly discuss the statistical technique. Then the asset-liability management, capital structure and interest rate risk, securitization and market risk, consumer banking and credit risk, risk requirement would be discussed. Of course, the bank risk management issues in Taiwan should be investigated under the new Basel capital accord.

Theory of Finance

This course focuses on the theory of corporate finance and behavior finance. It is designed to help students to reinforce and extend the principles and concepts of behavior finance. We will cover a total of twelve key papers of market efficiency, prospect theory and behavior finance. Every student should read the papers before the class and presents his comment of the issues involved at the class. This course emphasizes the ability of problem-solving at real-world, so the students are expected to use financial theory to explain and solve the real issues.

Numerical Analysis of Finance

Financial related courses concern many empirical issues, including investment decision, risk and return estimation, portfolio analysis, project valuation, fixed-income securities, and equity valuation, etc. Usually, a large empirical data set and computing resource are needed when applying these models. The purpose of this course is to on the one hand facilitate the coding ability of the students, and on the other implement the models using Matlab.