

Descriptions of courses

ITM 501 Introduction to Innovation Management : Theory and Practices

This course intends to provide a multi-methodological approach to multi-faceted issues concerning Innovation Management. In short, we will examine the chain of value creation in the market through commercialization of new technology and also the success factors of those activities. We will study this topic both in theory and practices.

ITM 502 Entrepreneurship

This course aims to prepare students to develop the knowledge, skills, and mind-set that will support and enhance their entrepreneurial activities in a startup or a corporate setting, by exposing them to a diverse group of entrepreneurs, their real life stories, and their genuine motivation.

ITM 503 Managerial Economics

This course is concerned with the understanding of basic principles in business economics. Business economics considers how individuals, firms, the government, and other organizations make choices. In addition, economic forces are a fundamental determinant of firms' profitability and growth, and economic thinking should be a fundamental influence in nearly every managerial decision. In this course, we will examine the principles of microeconomics, and illustrate how they apply to managerial decision-making. By the end of semester, students should understand the main logical arguments in business economics and be able to use these tools to analyze business and public policy problems.

ITM 504 Financial and Managerial Accounting

This course is to provide the basic knowledge of the financial accounting and the managerial accounting, essential to understanding the business performance, and to making proper business decision to maximize the financial return. The subjects include, but not limited to, understanding financial statements, project valuation, cost behaviors, and budgeting. As a basic mandatory course for ITM, this course is designed to offer comprehensive understanding of accounting subjects.

ITM 505 Marketing Management

This course examines the process of strategic marketing management and considers its role within organizations. It presents the fundamentals of the marketing concept and considers the relationship between the marketing concept and other concepts such as innovation and entrepreneurship. The course considers tools and methods used to examine marketing environments, understand consumer and organizational buying behavior, segment markets and position products, develop new products, manage existing products and promote, price and place products. Numerous case study assignments will also be a part of the course.

ITM511 Statistical Analysis

This course covers the concepts and techniques concerning exploratory data analysis, frequency distributions, central tendency and variation, probability, sampling, inference, regression, and correlation. Students will be exposed to these topics and how each applies to and can be used in the business environment. Students will master problem solving using both manual computations and statistical software. At the end of the class, students will be able to analyze relevant data using contemporary computer-based technology and apply the results to make decisions concerning the specific question or problem.

ITM520 Information & Communication Technology Foresight

The pace of the technology progress in the information and communications industry will continue to increase. This is a very large, dynamic industry with many different types of players involved in the industry, driving innovations in many directions. In this class, the students will gain technology and business foresight from the perspectives of service providers, enterprises, end-users, and vendors.

ITM525 Bio-Medical Technology Foresight

This Bio-Medical Technology Course provides in-depth review of the broad range of up-to-date bio-medical technologies. Based on deeper understanding on such technologies, students can get insights on how to continue to foster innovation and to ensure safety and effectiveness of future bio-medical technologies in order to bring improved outcomes from the utilization of those technologies.

ITM530 Energy, Environment, Water and Sustainability Technology Foresight

This course focuses on the technological and cost “fundamentals” of emerging energy technologies, including solar, wind, biomass, oceanic, geothermal, hydropower, fuel cell (hydrogen), nuclear, and other more exotic energy sources. A premise of the course is that a sustainable energy technology must both be technically feasible and economically viable. We consequently investigate the technological promise and progress of each technology, as well as its economic opportunities and challenges. At the conclusion of the course, students will have a solid technical and economic understanding of these energy technologies.

ITM531 Nano-Convergence Technology Business Foresight(NTB)

In this class, students will gain the foresight of the nano technology as a platform technology from many different perspectives: nano-based technology business (commercialization) opportunities including idea, invention, intellectual properties, initiatives, and incorporation. It is believed that the best way to engage students to learn and be excited about technology foresight is through our special class projects including making idea for the real start-up companies based on the nano convergence technologies.

ITM540 Strategy for innovative Business

This class introduces the students to the core concepts of strategic management for technology-intensive industries. The topics covered in the class include: external and internal analysis, value chain, different levels of strategies, acquisitions, outsourcing, organic growth strategy through innovation, platform strategy, and pricing strategy. There will be both group projects and individual assignments. By doing projects and assignments, the students will be able to internalize the understanding of the strategic frameworks by applying to key technology-intensive industries of the future. The instructors will challenge the students to participate in the class discussions and to share ideas through case studies and group discussion exercises.

ITM550 Finance for Technology Executive

This course studies financial subjects that are essential to manage the technology organization. The subject covers valuation of assets, risk management, risk return tradeoff, corporate financing, derivatives, and venture capital. This course provides comprehensive understanding of modern financial system as well.

ITM560 Leadership for Innovative Organization

Ultimately, the goal of managers and leaders is to get things done in organizations. Most of that work is accomplished by effectively managing human and social capital. Using cases, exercises, and readings, we will focus on the skills and tools managers need to be successful in today’s rapidly changing, dynamic, and innovative organizations.

ITM561 Negotiation and Communication

Negotiation and Communication is a hands-on, skill-oriented class which addresses two topics of central importance to anyone who seeks to succeed or to survive, in an organizational environment. The concepts presented in the course are introduced to prepare for or reflect on the succession of exercises or simulations.

ITM570 Process and Operations Management

This course studies the essential concept and cases to manage the business process and operation efficiently and effectively. Broad issues of scheduling and planning, supply chain management, and project management are all considered in a concise integrated manner.

ITM580 Survey of Intellectual Property and Business Law

This course covers the broad range of IP topics and selected business law issues. Students will gain a basic understanding on the principal modes of legal protection for intellectual work under patent, copyright, trademark, and trade secret. Students will also learn about legal issues on business formation and management, securities regulation, and shareholders' rights and liabilities. Furthermore, students will be familiarized with contractual agreements, theories and types of product liability, and employment issues. This course is intended to help students become a smart user of legal services in general. It is also intended to be particularly helpful to students who want to be a IP manager in an organization.

ITM601 Research Methodologies I

This course provides basic knowledge of academic research for graduate students. This course covers diverse topics associated with academic research, including conceptualizing a research design, literature review, identifying variables, constructing hypotheses, data collection, instrument development, sampling, empirical analysis, etc. At the end of this semester, each student will complete a piece of his/her own international-conference-level paper in his/her field.

ITM610 Formation and Implementation of Entrepreneurial Ventures

This course centers on writing a comprehensive business plan and implementation plan for a venture of students' choice. Teams of 3 ~ 4 students will work on the development of a business plan. It will allow students to acquire the knowledge and skill set necessary for developing and writing a coherent and effective plan to start a business, in either a startup or a corporate setting.

ITM611 Corporate Entrepreneurship and Innovation

This course will expose students to a mix of approaches and techniques that promote innovative thinking and entrepreneurial behavior in organizations. The first half of the course examines how patterns of change in technologies and industries create both opportunities and threats for existing firms and entrepreneurs. The second half of the course focuses on tactics and strategies that encourage innovation and entrepreneurship within (and between) organizations.

ITM620 Best practice of Technology commercialization

This course is designed to provide students with theoretical and practical knowledge of technology commercialization within companies, universities, spin-offs, and standalone start-ups through a case-based approach, guest speaker's experiences, and a term-length project, will enhance their understanding of various business approaches and experiences related, so they have an opportunity to adopt the perspective of a CEO/founder or decision maker.

ITM621 R&D Planning and TRM

This course aims to approach the design process from a broader business perspective. Beyond the traditional role of industrial design and designers, this project attempts to include developing business strategy as a design problem. By investigating and analyzing the market, company structure and business model, students engage in managerial decision-making process to develop business strategies.

ITM630 Cluster innovation cases and practice

This course examines the relationship between innovation and competitiveness at the firm(esp. MNC) and country levels and evaluates how innovation policies regarding R&D, human resource development, technology financing, innovation cluster, and high-tech SMEs etc., are being gradually reshaped in the current context of the globalization of a knowledge-driven economy.

ITM631 Case Studies of Open Innovation

This course intends to investigate the real life cases of open innovation, which has emerged as new innovation paradigm at global scale. We will follow the reason why open innovation occurred in some firms but not in others. Specifically, we will approach this issue in light of innovation habitat.

ITM632 Public R&D and Evidence-based Policy

This course provides the basic knowledge of public R&D in Korea which can be utilized in business activities. We will discuss the past, present and the future of Korea's public R&D with the perspective of evidence-based policy. In this course, students will have some practice of developing advanced policy infra.

ITM633 The Knowledge Industry

This course will provide concepts, methodologies and issues of the Knowledge Industry. Students will learn : (1) basic technologies (2) current issues of the knowledge industry and (3) how to design the business model on the basis of forecasting the industry's future.

ITM634 Innovation Ecosystem

This course will provide special concepts, methods and issues on innovation ecosystem at national as well as regional level. Students can foster their capability of managing innovation ecosystem through some examples which have developed in venture business, IT industry and Daedeok Innopolis.

ITM635 Entrepreneurial law

Overview of legal issues arising in connection with establishment, operation and divestment (exit) of venture company

ITM640 Integrated Perspective of New Product Development

The development of new products (goods or services) is an intensively cross-functional process. This course examines that process from the classical marketing perspective with operations, finance, organizational policy, and strategic planning.

ITM650 Integrated perspective of Merger and Acquisition

Corporate merge and acquisition involves various issues intertwined with each other; strategic, financial, organizational, and legal issues. This course provides integrated perspective on corporate merge and acquisition using these four different subject view points, and discusses the tradeoff and the common traps using empirical cases.

ITM660 High-Tech Innovation and Marketing

This course covers issues related with high-tech industry including marketing strategy. High-tech industry requires concrete understanding of consumers from the stage of ideation of a product till that of marketing strategy setting because of its industry characteristics of high cost and market risk. From this course, students study innovation issues in high-tech industry and related marketing strategy.

ITM661 Corporate Strategic New Product Development

This course aims to approach the design process from a broader business perspective. Beyond the traditional role of industrial design and designers, this project attempts to include developing business strategy as a design problem. By investigating and analyzing the market, company structure and business model, students engage in managerial decision-making process to develop business strategies.

ITM701 Research Methodology II

This class try to achieve in-depth understanding of the high level research methodologies which should be essential in writing empirical dissertation paper and conducting various researches in the field of business. The class covers empirical design focussing validities, and multivariate data analyses including ANOVA, Factor Analysis, Regression, Discriminant Analysis, Conjoint Analysis, Multidimensional Scaling, Structural Equation. etc.

ITM702 Advanced Econometrics

Topics to be studied include specification, estimation, and inference in the context of models that include then extend beyond the standard linear multiple regression framework. After a review of the linear model, we will develop the asymptotic distribution theory necessary for analysis of generalized linear and nonlinear models. We will then turn to instrumental variables, maximum likelihood, GMM, and two step estimation methods. Inference techniques will be extended to include Wald, Lagrange multiplier and likelihood ratio tests. Modelling frameworks will include the linear regression model and extensions to models for panel data, multiple equation models.

ITM800 Special Topics(3) in Management of Technology

This course is designed to let the graduate students understand the state-of-the-art research activities in management of technology for I&TM and have them participate in the research though individual projects.

ITM801 Special Topics(1) in Management of Technology

This course is designed to let the graduate students understand the state-of-the-art research activities in management of technology for I&TM and have them participate in the research though individual projects.

ITM802 Special Topics(2) in Management of Technology

This course is designed to let the graduate students understand the state-of-the-art research activities in management

of technology for I&TM and have them participate in the research through individual projects.

ITM960 MS Thesis Research

This is research credit for preparing Master's dissertation.

ITM965 Individual /Group study in Master's

This is research credit for independent study

ITM980 Ph.D Dissertation Research

This course is for the doctor's degree thesis based on independent research work performed by the candidate in the laboratory of the advisory professor

ITM985 Individual/Group Study in Ph. D

This is research credit for independent study

ITM991 Internship Program I

An internship work experience is intended to help you apply your formal classroom education to "real world" work experience. The work assignment must be related to the your area of interest and may be conducted within business or industry, the public or private sector.

ITM993 Internship Program II

An internship work experience is intended to help you apply your formal classroom education to "real world" work experience. The work assignment must be related to the your area of interest and may be conducted within business or industry, the public or private sector.

ITM995 International Internship

An global internship work experience is intended to help you apply your formal classroom education to "real world and global" work experience. The work assignment must be related to the your area of interest and may be conducted within business or industry outside of Korea.