

# Description of Courses

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## ■ graduate Program

### **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.

### **MSB530 Accounting Principles**

The objectives of this course are for graduate students to comprehend "accounting procedures" with which accounting information is gathered, processed and presented; to understand contents in companies' financial statements; and to apply to management functions with accounting numbers.

### **MSB535 Technology Management and Corporate Finance**

The objective of this course is to study the basic concepts, theories, and current issues of corporate finance and apply the materials to technology management. Students are required to write individual research proposals related to technology management and corporate finance including literature reviews, research hypothesis development, data collection, empirical analysis, interpretation of empirical results, and conclusion. In addition, as a group project, students conduct technology valuation using the currently developed technology. Students are required to make presentations of both academic papers and technology valuation project at the end of semester.

### **MSB536 Marketing for High-Tech Companies**

This course is concerned with the development, evaluation, and implementation of marketing management in complex environments for Hi-tech companies. The course deals primarily with an in-depth analysis of a variety of concepts, theories, facts, analytical procedures, techniques, and models. The course addresses strategic issues such as:

- What business should we be in?
- What are our long-term objectives?
- What is our sustainable marketing competitive advantage?
- Should we diversify?
- How should marketing resources be allocated?
- What marketing opportunities and threats do we face?
- What are our marketing organizational strengths and weaknesses?
- What are our marketing strategic alternatives?

### **MSB537 Digital Innovation and IT Management**

This course is designed to provide a clear understanding of the various advanced management, organizational, and ethical issues of digital innovation for graduate students. Effective management of digital innovation and IT resources are becoming even more compelling and significant in light of Internet business. To achieve these objectives, a combination of various approaches including

class lectures, case discussions, group projects and assignments will be offered.

### **MSB538 Managing Innovative Organization**

We will focus on the skills and tools managers need to be successful in innovative organizations. The objectives of this course are to understand multiple theoretical and conceptual foundations of managing innovative organizations and apply scientific knowledge to lead and manage real-world innovative organizations.

### **MSB637 Theory of Consumer Behavior and Decision Making**

This course is designed to familiarize students with the current major theoretical streams of research in consumer behavior and decision making. It is expected that students will develop and refine the ability both to critically evaluate the theoretical contribution of articles in consumer behavior and decision making and to formulate theory-based hypotheses capable of advancing the discipline's understanding of consumer behavior and decision making.

### **ITM503 Managerial Economics for Technology Management**

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.

### **MSB510 Innovation Management and Strategy**

Management of innovation is defined as the set of activities associated with bringing high technology products to the marketplace. Innovation management strategy aims to integrate management of market, industry, technological, organizational change to improve the competitiveness of firms and effective organization. In doing so, this course will examine on the basis of the dynamic firms capability framework- position in the competitive and national environment, Path for developing and exploiting technological trajectories, Process for strategic integration and learning.

### **ITM501 Innovation Management**

This course intends to provide multi-methodological approach to multi-faceted issues concerning on 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.

### **ITM502 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.

### **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.

**MSB500 Advanced Statistics for Management**

The course emphasizes formulating models and using them for decision-making prediction. Topics include probability theory, sampling, estimation, hypothesis testing, regression analysis, analysis of variance, and some more techniques such as factor analysis, cluster analysis, if time permits. For all the issues, both theoretical and practical aspects through case studies will be emphasized.

**MSB601 Research Methodology in Business and Technology Management**

This is an introductory graduate level seminar on research methods in business, science, and technology. It deals with a variety of issues on research methods including research design, experiments, quasi-experiments, survey development, qualitative research methods, and others. This is to be explorative and thought-provoking mutual learning experiences by active engagements of all members of the class.

**MSB701 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.

**MSB702 Research Methodologies 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.

**ITM512 Data Analysis with Open Software**

This course introduces students to various statistical techniques that economists use for estimating, testing, and forecasting economic relationships. The objective of this course is to provide students with the tools required to evaluate and to carry out empirical research. The course starts with introducing some basic regression models, and then moves on to cover more advanced topics in panel data and time series analysis. Frontier research papers with various economic data sets will be covered, which will help the course practical and useful.