

## Course Requirements for BTM Undergraduate Program

Admission Year	General			Basic			Major			Research (4credits or more)		Elective	Total
	Mandatory	Elective in Humanities and SC	Total	Mandatory	Elective	Total	Mandatory	Elective	Total	Mandatory			
~ 2013	6 (9AU)	12 (Not Considering Divisions)	18 (9AU)	23	3	26	9	33 or more	42 or more	3 (Practicum Project, Internship, Graduate Research) choose one	1 S&T Biz Colloquium	Double Major Credits (40 or more credits)	130 or more credits
2014 ~ 2015	7 (9AU)	12 (Not Considering Divisions)	19 (9AU)	23	3	26	9	33 or more	42 or more	3 (Practicum Project, Internship, Graduate Research) choose one	1 S&T Biz Colloquium	Double Major Credits (40 or more credits)	130 or more credits
2016 ~	7 (9AU)	12 (Not Considering Divisions)	19 (9AU)	23	3	26	9	39 or more	48 or more	3 (Practicum Project, Internship, Graduate Research) choose one	1 S&T Biz Colloquium	Double Major Credits (40 or more credits)	136 or more credits

※ [BTM Undergraduate Major Students must complete double major course from other natural sciences or engineering departmenets.](#)(The College of Natural Sciences, The College of Life Science & Bioengineering, The College of Engineering, etc.)

※ A cumulative grade point average of 2.0 or higher out of a possible 4.3 in all coursework.

● Requirements for students entered in 2013 or before

Classification	Requirement	Details
General Course (18+9AU)	Mandatory General Course (6, 9AU)	<ul style="list-style-type: none"> <li>- * English Communication(1), ** Critical Thinking in English(2), Writing(3)</li> <li>* Substitute (HSS010) : Intermediate English Speaking &amp; Listening(2)</li> <li>** Substitute (HSS011) : Intermediate English Reading &amp; Writing(2)</li> <li>- Physical Education(4AU), Humanity/Leadership(2AU: 32hours), Ethics and Safety II (1AU), Happy College Life(1AU), Exciting College Life(1AU)</li> <li>※ Community Service : Not applicable to students entering KAIST in 2011 and thereafter. However, leadership mileage will be awarded for proof of community service.</li> <li>* AU(Activity Unit) recognized courses include physical education, humanity/leadership, happy college life, and ethics &amp; safety. These courses are not included in the graduation credits but are necessary for graduation.</li> </ul>
	Elective	※ <b>Students having a double major take 12 credits without considering</b>

	General Course in Humanities & Social Science(12)	<u>categories.</u>
Basic Course (26)	Mandatory Basic Course (23)	① 1 course among Fundamental Physics I (3), General Physics I (3), and Advanced Physics I (3) ② 1 course among Fundamental Physics II (3), General Physics II (3), and Advance Physics II (3) ③ 1 course of General Physics Lab I (1) ④ 1 course of Basic Biology (3) or General Biology (3) ⑤ 1 course of Calculus I (3) or Honor Calculus I (3) ⑥ 1 course of Calculus II (3) or Honor Calculus II (3) ⑦ 1 course among Basic Chemistry (3), General Chemistry I (3), and Advanced Chemistry (3) ⑧ 1 course of General Chemistry Lab I (1) or Advanced Chemistry Lab (1) ⑨ 1 course of Basic Programming (3) or Advanced Programming (3)
	Elective Basic Course (3)	* <u>Students having a double major take at least 3 or 6 credits.</u>
Major Course (at least 42)	Mandatory Major Course(9)	MSB200 Introduction to business Management, MSB204 Technology Management, MSB351 High Tech Venturing
	Elective Major Course (at least 33)	Elective Major I : At least 15 credits Elective Major II : At least 12 credits Elective Major III : At least 6 credits * A maximum of 6 credits are counted in MSB481, if the subtitles are different.
Research Course (4)	Mandatory(4)	Select one from Practicum Project(3), Internship(3), B.S. Thesis Research(3)
		S&T Biz Colloquium(1) * <u>International students can substitute S&amp;T Biz Colloquium for Individual Study(1).</u>
Elective Course	Double major credits	
Total	at least 130 credits	

● Requirements for students entered in 2014~2015

Classifi- cation	Requirement	Details
General Course (19+9AU)	Mandatory General Course (7, 9AU)	<ul style="list-style-type: none"> <li>- English Presentation &amp; Discussion(1), Advanced English Listening(1), Advanced English Reading(1), Advanced English Writing(1), Writing(3)</li> <li>- Physical Education(4AU), Humanity/Leadership(2AU: 32hours), Ethics and Safety II (1AU), Happy College Life(1AU), Exciting College Life(1AU)</li> </ul> <p>* Community Service : Not applicable to students entering KAIST in 2011 and thereafter. However, leadership mileage will be awarded for proof of community service.</p>

		* AU(Activity Unit) recognized courses include physical education, humanity/leadership, happy college life, and ethics & safety. These courses are not included in the graduation credits but are necessary for graduation.
	Elective General Course in Humanities & Social Science(12)	* <u>Students having a double major take 12 credits without considering categories.</u>
Basic Course (26)	Mandatory Basic Course (23)	<ul style="list-style-type: none"> <li>① 1 course among Fundamental Physics I (3), General Physics I (3), and Advanced Physics I (3)</li> <li>② 1 course among Fundamental Physics II (3), General Physics II (3), and Advance Physics II (3)</li> <li>③ 1 course of General Physics Lab I (1)</li> <li>④ 1 course of Basic Biology (3) or General Biology (3)</li> <li>⑤ 1 course of Calculus I (3) or Honor Calculus I (3)</li> <li>⑥ 1 course of Calculus II (3) or Honor Calculus II (3)</li> <li>⑦ 1 course among Basic Chemistry (3), General Chemistry I (3), and Advanced Chemistry (3)</li> <li>⑧ 1 course of General Chemistry Lab I (1) or Advanced Chemistry Lab (1)</li> <li>⑨ 1 course of Basic Programming (3) or Advanced Programming (3)</li> </ul>
	Elective Basic Course (3)	* <u>Students having a double major take at least 3 or 6 credits.</u>
Major Course (at least 42)	Mandatory Major Course(9)	MSB200 Introduction to business Management, MSB204 Technology Management, MSB351 High Tech Venturing
	Elective Major Course (at least 33)	Elective Major I : At least 15 credits Elective Major II : At least 12 credits Elective Major III : At least 6 credits * A maximum of 6 credits are counted in MSB481, if the subtitles are different.
Research Course (4)	Mandatory(4)	Select one from Practicum Project(3), Internship(3), B.S. Thesis Research(3)
		S&T Biz Colloquium(1) * <u>International students can substitute S&amp;T Biz Colloquium for Individual Study(1).</u>
Elective Course	Double major credits	
Total	at least 130 credits	

● Requirements for students entered in 2016 and thereafter

Classification	Requirement	Details
General Course (19+9AU)	Mandatory General Course (7, 9AU)	<ul style="list-style-type: none"> <li>- English Presentation &amp; Discussion(1), Advanced English Listening(1), Advanced English Reading(1), Advanced English Writing(1), Writing(3)</li> <li>- Physical Education(4AU), Humanity/Leadership(2AU: 32hours), Ethics and Safety II (1AU), Happy College Life(1AU), Exciting College Life(1AU)</li> </ul> <p>※ Community Service : Not applicable to students entering KAIST in 2011 and thereafter. However, leadership mileage will be awarded for proof of community service.</p> <p>* AU(Activity Unit) recognized courses include physical education, humanity/leadership, happy college life, and ethics &amp; safety. These courses are not included in the graduation credits but are necessary for graduation.</p>
	Elective General Course in Humanities & Social Science(12)	<p>※ <u>Students having a double major take 12 credits without considering categories.</u></p>
Basic Course (26)	Mandatory Basic Course (23)	<ul style="list-style-type: none"> <li>① 1 course among Fundamental Physics I (3), General Physics I (3), and Advanced Physics I (3)</li> <li>② 1 course among Fundamental Physics II (3), General Physics II (3), and Advance Physics II (3)</li> <li>③ 1 course of General Physics Lab I (1)</li> <li>④ 1 course of Basic Biology (3) or General Biology (3)</li> <li>⑤ 1 course of Calculus I (3) or Honor Calculus I (3)</li> <li>⑥ 1 course of Calculus II (3) or Honor Calculus II (3)</li> <li>⑦ 1 course among Basic Chemistry (3), General Chemistry I (3), and Advanced Chemistry (3)</li> <li>⑧ 1 course of General Chemistry Lab I (1) or Advanced Chemistry Lab (1)</li> <li>⑨ 1 course of Basic Programming (3) or Advanced Programming (3)</li> </ul>
	Elective Basic Course (3)	<p>※ <u>Students having a double major take at least 3 or 6 credits.</u></p>
Major Course (at least 48)	Mandatory Major Course(9)	MSB200 Introduction to business Management, MSB204 Technology Management, MSB351 High Tech Venturing
	Elective Major Course (at least 39)	<p>Elective Major I : At least 15 credits</p> <p>Elective Major II : At least 18 credits</p> <p>Elective Major III : At least 6 credits</p> <p>* A maximum of 6 credits are counted in MSB481, if the subtitles are different.</p>
Research Course (4)	Mandatory(4)	<p>Select one from Practicum Project(3), Internship(3), B.S. Thesis Research(3) S&amp;T Biz Colloquium(1)</p> <p>* <u>International students can substitute S&amp;T Biz Colloquium for Individual Study(1).</u></p>
Elective Course	Double major credits	
Total	at least 136 credits	

● English Proficiency Requirements for Graduation

- Before entering or during studying at KAIST, students should obtain the minimum required score or higher from one of the following: TOEFL, TOEIC, TEPS and IELTS.
- Students who have hearing impairment level 3 or above should obtain the minimum required score or higher, excluding listening.

1) Students who have submitted past scores for TOEIC (before April 2006) or TEPS (before February 28, 2007)

- Students admitted in 2008 or later

Classification	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	775	690	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	387	414	4.8

- Students admitted in 2007 or earlier

Classification	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	760	670	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	380	402	4.8

2) Students who have submitted NEW TOEIC score taken after May 2006 or TEPS score taken after March 1, 2007

구분	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	720	599	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	360	359	4.8

● TOPIK Requirement for undergraduate foreign student

- Undergraduate foreign students are required to obtain level 2 or higher score in TOPIK before entering or during studying at KAIST.

※ Applies to students entering KAIST in 2013 and thereafter

## BTM Curriculum Table for Undergraduate Program

Classification	Subject No.	Subject Name	Lecture : Lab: Credit (Assignment)	Lecturer	Semester	Remark
Mandatory Major	MSB200	경영학개론 (Introduction to Business Management)	3:0:3	BTM Faculty	Spring, Fall	
	MSB204	기술경영개론 (Technology Management)	3:0:3	Chung,JY Kim, WJ	Spring, Fall	
	MSB351	기술창업론 (High tech Venturing)	3:0:3	Staff	Fall	
Elec- tive  I        Elec- tive  Major        Elec- tive II	MSB230	회계원리 (Principles of Accounting)	3:0:3	Chung,YH	Spring, Fall	
	MSB235	재무관리 (Financial Management)	3:0:3	Nam, CG Han, SH	Spring, Fall	
	MSB236	마 케 팅 (Marketing)	3:0:3	Lee,EH Kim,HJ	Spring, Fall	
	MSB237	경영정보개론 (Introduction to MIS)	3:0:3	Zo,HJ	Fall	
	MSB238	조직행동론 (Organizational Behavior)	3:0:3	Lee,SJ Song,CH	Spring	
	MSB341	경영과학론 (Management Science)	3:0:3	Choi,MK	Fall	
	MSB343	경영전략론 (Business Strategy)	3:0:3	Lee,HK	Spring	
	MSB450	기업가정신과 벤처 (Entrepreneurship & Venture Business)	3:0:3	Yang,TY	Spring	*ENP310
	MSB201	통계분석론 (Statistical Analysis for Business)	3:0:3	Park,MC	Fall	
	MSB336	기술마케팅 (Technology Marketing)	3:0:3	Lee,EH	Spring	
	MSB337	정보기술경영 (Information Technology Management)	3:0:3	Zo,HJ	Spring	
	MSB338	소비자행동론(Consumer Behavior)	3:0:3	Lee,EH	Spring	
	MSB354	생산관리론 (Operations Management)	3:0:3	Rho,JJ	Fall	
	MSB356	정보사회론(Information Society)	3:0:3	Lee,Kk	Spring	
	MSB360	R&D 프로젝트 관리론(R&D Project Management)	3:0:3	Kim,WJ	Fall	
	MSB370	기술사업성 분석 (Analysis of technology valuation)	3:0:3	Chung,YH	Fall	*ENP450
	MSB401	기술혁신경영 (Management of Technology Innovation)	3:0:3	Staff	Fall	
	MSB403	혁신사례 (Innovation Case Study)	3:0:3	Staff	Spring	
	MSB407	미래기술 및 산업전망 (Future Technology and Industry)	3:0:3	Staff	Spring	
	MSB411	투자론 (Investment)	3:0:3	Han,SH	Fall	
	MSB416	미래하이테크 제품개발론 (Future High-tech Product development)	3:0:3	Chung,JY	Spring	
MSB421	첨단기술 인적자원관리 (High-Tech Human Resources Management)	3:0:3	Song,CH	Fall		
MSB431	관리회계(Managerial Accounting)	3:0:3	Chung,YH	Fall		
MSB436	마케팅조사론 (Marketing Research)	3:0:3	Kim,HJ	Fall		
MSB440	벤처기업 관련법과 사례분석 (Legal Aspects and Cases of Entrepreneurship)	3:0:3	Staff	Spring		
MSB441	특허법과 경영 (Patent Law and Management)	3:0:3	Staff	Spring		

	MSB443	협상의 기술과 갈등관리 (Negotiation and Contention Management)	3:0:3	Staff	Spring	
	MSB446	공급망관리(Supply Chain Management)	3:0:3	Rho,JJ	Spring	
	MSB451	벤처창업기획과 실제 (Venture Formation Practice)	3:0:3	Staff	Spring	
	MSB452	비즈니스모델 (Business Model)	3:0:3	Lee,HK	Spring	
	MSB454	정보통신정책론 ((Information Policy)	3:0:3	Lee,KB	Fall	
	MSB455	서비스공학 (Service Engineering)	3:0:3	Staff	Spring	
	MSB456	지식비즈니스 (Knowledge Business)	3:0:3	Staff	Spring	
	MSB458	웹 기술과 경영 전략(Web Technologies and Business Strategies)	3:0:3	Zo,HJ	Fall	
	MSB472	중국 경제발전 (China's Economic Development)	3:0:3	Staff	Spring	
	MSB481	기술경영 특수논제 I (Special Topics I in Business and Technology Management )	3:0:3	BTM Faculty	Spring, Fall	
	MSB482	기술경영 특수논제 II (Special Topics II in Business and Technology Management )	2:0:2	BTM Faculty	Spring, Fall	
	MSB483	기술경영 특수논제 III (Special Topics III in Business and Technology Management )	1:0:1	BTM Faculty	Spring, Fall	
	ENP430	기업가들을 위한 법 (Entrepreneurial Law)	3:0:3	Staff	Spring	
	Elective III	MSB215	미시경제학 (Microeconomics)	3:0:3	Kwon,YS Lee,DH	Spring, Fall
MSB301		계량경제학 (Econometrics)	3:0:3	Kim,JH	Fall	
MSB316		거시경제학 (Macroeconomics)	3:0:3	Min,HG Chae,SC	Spring, Fall	
MSB402		국제경제학 (International Economics)	3:0:3	Min,HG	Fall	
MSB408		기술경제학 (Economics of Technology)	3:0:3	Kwon,YS	Fall	
MSB413		산업조직론 (Industrial Organization)	3:0:3	Lee,DH	Spring	
MSB415		게임이론 (Game Theory)	3:0:3	Chae,SC	Fall	
Research	MSB490	졸업연구 (B.S. Thesis Research)	0:6:3	BTM Faculty	Spring, Fall	
	MSB491	CEO 세미나 (CEO Seminar)	1:0:1	BTM Faculty	Fall	
	MSB493	프랙티컴 프로젝트(Practicum Project)	0:4:3	BTM Faculty	Spring, Fall	
	MSB495	개별연구 (Individual Study)	0:6:1	BTM Faculty	Spring, Fall	
	MSB496	S&T Biz 콜로키엄 (S&T Biz Colloquium)	1:0:1	BTM Faculty	Spring	

\* MSB491 CEO 세미나(CEO Seminar) : Elective Major II → Research (2015 Fall Semester ~ )

\* IE200(OR), IE425(Project Management) : Not counted as elective major any more (from students entering 2015)

**[Reference]**

※ Students entered in 2015 and before : 2009-6 Curriculum Implementation (교육혁신팀-543, 2009.7.16.)

If major courses in first major department and in minor/double major department are overlapped, a maximum of 9 credits of those overlapped courses are recognized.

※ Students entered in 2016 and after : Operational Guidelines for Curriculum Article 15-2 (Prohibition on Double Counting in Undergraduate Program)

① Undergraduate credits cannot be double counted. If major courses in first major department and in double major department are overlapped, a maximum of 6 credits of those overlapped courses are recognized, exceptionally.

"세계를 향한 대학, 미래를 여는 연구"



한국과학기술원(KAIST)

수신자 수신처 참조 (경유)

제 목 제2009-7회 교과과정 신설 및 변경내역 시행  
 1. 관련 : 제2009-7회 교과과정심의위원회(서면결의) 교육혁신팀-582 (2009.07.31)  
 2. 위와 관련 제2009-7회 교과과정심의회 거친 교과과정 신설 및 변경내역을 붙임과 같이 시행합니다.  
 3. 부·복수전공을 활성화하기 위하여 부·복수전공 이수시 교과목 이수조건이 아래와 같이 변경되었으니 반드시 참고하시기 바랍니다.

=아 래 =

가. 변경사항	현행	변경
	부·복수전공 신청학과 의 교과목이 중복되는 경우 신청학과 의 전공과목을 추가로 이수함.	수속학과와 부·복수전공 신청학과 의 전공과목이 중복되는 경우 9학점까지 중복인정함.

나. 경과조치  
 시행일부턴 모든 재학생에게 적용함.

붙 임 . 제2009-7회 교과과정 신설 및 변경내역 시행 . 끝 .

**총 장**

수신자 수신처 참조 (경유)

제 목 제2009-7회 교과과정 신설 및 변경내역 시행  
 1. 관련 : 제2009-7회 교과과정심의위원회(서면결의) 교육혁신팀-582 (2009.07.31)  
 2. 위와 관련 제2009-7회 교과과정심의회 거친 교과과정 신설 및 변경내역을 붙임과 같이 시행합니다.  
 3. 부·복수전공을 활성화하기 위하여 부·복수전공 이수시 교과목 이수조건이 아래와 같이 변경되었으니 반드시 참고하시기 바랍니다.

발급	송유리나	발급	김영준		
협조자					
시행	교육혁신팀-583	( 2009.07.31 )	접수	경영학과과-40	( 2009.08.03 )
우	305-701	대전광역시 유성구 과학로 335 (구성동 373-1)	/ <a href="http://www.kaist.ac.kr">www.kaist.ac.kr</a>		



## **Descriptions of Courses**

### **□ Undergraduate Program**

#### **MSB200 Introduction to Business Management**

This course is established for students to understand the company's effective/efficient management and approaches in a constantly competing environment. With the understanding of company's essence, management activities, and conceptual frame of management, students will examine the latest trends in management, organizational changes, innovation, and entrepreneurship.

#### **MSB201 Statistical Analysis for Business**

This course discusses some statistical analysis tools in undergraduate levels of business for a variety of applications in accounting, finance, marketing, production and others areas. Topics include regression analysis, analysis of variance, goodness-of-fit test, time series analysis, sampling methods, some statistical decision theory, and non-parametric methods.

#### **MSB204 Technology Management**

This course aims to provide students with an introduction of the key technology and innovation management challenges that students will face as an engineer working in business. As a decision maker in technology related business, it is essential to understand the notion of science and technology, patterns and sources of technological innovation, and mechanism of technological innovation. In addition, there will be an emphasis on concept learning for technological management such as Product development process, R&D project management, Intellectual property management, outsourcing management, and role of CTO.

#### **MSB215 Microeconomics**

This course is concerned with the understanding of basic principles in microeconomics. Microeconomics considers how individuals, firms, the government, and other organizations make choices. By the end of semester, students should understand the main logical arguments used by economists to describe how the world works, and be able to use these tools to analyze business and public policy problems.

#### **MSB230 Principles of Accounting**

This course will help students to understand accounting functions, accounting responsibilities, accounting standard, the necessity of external auditing, and reasons why corporations compose and announce financial statements. Students will summarize and analyze corporations' financial statements. Also, students will be trained to obtain better understanding of the main accounting processing method and its meanings for use in decision-making.

#### **MSB235 Financial Management**

Financial Management is concerned with the maintenance and creation of economic value. Corporations raise funds from financial markets (financing decisions) and invest them to create value (investment decisions). The objective of this class is to study how those financing and investment decisions are made by corporations with an eye toward creating value. The class covers financial analysis and planning, valuation of securities, capital budgeting, risk and return relationship and opportunity cost of capital, alternative corporate financing and capital structure, etc.

#### **MSB236 Marketing**

Marketing for engineering students shows how important marketing activities are to science and engineering students. This course educates students' overall basic concepts and major issues on marketing, and based on the learned concepts and through cases of technology oriented corporation, students will enhance their learning effectiveness by linking real-life marketing and marketing theories.

#### **MSB237 Introduction to MIS**

This course is designed to provide a broad overview of the fundamental concepts of information systems for students. The course includes the basic concepts of computer hardware, software, databases, data communication networks, Internet, various information systems and other emerging technologies. It also covers the history of computing and different scientific views towards IT to understand the interrelationships between

technologies and society.

### **MSB238 Organizational Behavior**

This course is to provide students with an understanding of the fundamental theories and practices of organization and its people. The main content comprise of two parts. One part is mainly for issues related to individuals and groups in an organization including motivation (recruitment, learning, evaluation, and rewards), job design, job adaptation, and group behavior. Another content covers issues of organizational management such as organizational structure, processes (communication, decision-making), leadership, and organizational development.

### **MSB301 Econometrics**

This course will provide students with an opportunity to learn basic methods of multiple regression analysis. Estimation and testing hypotheses are the primary concerns of this course. Topics covered in this course are multiple regression, structural change, and time series analysis.

### **MSB316 Macroeconomics**

This course is concerned with the construction of macroeconomic theories that can explain and predict variations in aggregate (economy-wide) variables, such as GNP, unemployment, the general price level, interest rates, growth rates, and the exchange rate. The course material and class organization stress the development of the tools and background necessary for your field courses.

### **MSB336 Technology Marketing**

The aim of this course is to provide a solid grounding to students interested in managing various aspects of the technology marketing. The course will move through the following major components with an emphasis of pre planning tech marketing: strategy, organization, process, after service, technology valuation.

### **MSB337 Information Technology Management**

This course discusses the state-of-the-art of information technology(IT) management. It includes system development, user behavior, electronic business, web 2.0, big data and knowledge management for organizational performance. Students are required to develop their deep knowledge on the advance topics of IT management in this course.

### **MSB338 Consumer Behavior**

Basic concepts and research results from marketing and the social science are examined with the goal of enabling marketers to better understand customers and meet their needs. The decision process of buyers, factors affecting purchasing decisions, and customer satisfaction are major conceptual areas of the course. Implications for marketing strategies (e.g., market segmentation, product design, and promotion) are discussed.

### **MSB341 Management Science**

This course provides the Operations Research (OR) based design, analysis, modeling and algorithms for solving key problems arising in engineering and non-engineering (business) areas. The course will cover fundamental items such as Linear Programming, Network Analysis, Dynamic Programming, Game Theory, Integer Programming and Nonlinear Programming. In particular, application of OR techniques to telecommunications network design (including both wireline- and wireless systems) will be presented and illustrated.

### **MSB343 Business Strategy**

This class is concerned with a theoretical framework of exploring strategic alternatives which guide a firm toward future success and regulate the decisions of managers and the behaviors of employees. The class discussion will identify the effective ways to analyze external and internal contexts, explore strategic options related to competition, diversification, or globalization, etc., and understand organizational problems of strategy implementation. The understandings of strategic management could also contribute significantly to in-depth discussions of innovation, marketing activity, and organizational behavior in each firm level.

### **MSB351 High tech Venturing**

This course introduces the fundamental perspectives of concepts, process, which is the field of technology

based entrepreneurship and new business venturing. Entrepreneurs have to engage many process such as recognizing market opportunities, building Business Model, Financing etc to create viable new venture. This introductory course focuses on above process as well as series of topic related tech based entrepreneurship such as venture firm management, case studies, government policies, leading entrepreneurs.

#### **MSB354 Operations Management**

The basic theory of operations management will be introduced from a knowledge management viewpoint. Fundamental theories and innovative techniques on the management of production and service operations which is the foundation of scientific management are discussed.

#### **MSB356 Information Society**

This course focuses on the introduction and analysis of information and knowledge society. Internet-based socio-economic paradigm displays various issues, such as digital divide, privacy, intellectual property right and cyber ethics. The main purpose of this course resides in the enhancement of critical analysis of the social, economic and ethical issues in the internet-based socio-economic environment.

#### **MSB360 R&D Project management**

This course will cover basic concepts, theories, and real world cases of project organization, technique, and methodology for the maximization of investment and the minimization of uncertainty of the full life-cycle of R&D project, planning, selection, control, and evaluation, through lectures and group term project.

#### **MSB370 Analysis of technology valuation**

This course will address the philosophies and practices of technology value based firm R&D activities. Students will learn the basic concept and analysis methods about budget and benefit of firm R&D investment for developing technology

#### **MSB401 Management of Technology Innovation**

The course is catered for managers and senior engineers who may be involved in new business development and R&D management for high-technology companies. The concepts and analytical frameworks are useful and relevant when you are in a business of managing technical-based resources and knowledge assets in a rapidly changing environment. Although some readings we use in this course present a certain level of technical details, the focus is on strategic management issues rather than the specific details of any particular technology. Nonetheless, students in the past have enjoyed learning the selection of technologies in terms of diversity and stages of evolution.

#### **MSB402 International Economics**

The Theory and Policy of International Economics is a natural extension of the principles of economics in a globalized environment. The class is basically a combination of the study of theory and real world application. Occasionally, the group and individual presentation and debate will be introduced.

#### **MSB403 Innovation Case Strategy**

This course is to learn dynamics and paradigms of innovation using multiple case studies. This course aims to make the students get familiar with key concepts such as the evolution path, the diffusion pattern, the value capture, and the implementation of the innovation, so that they become more effective in creating and nurturing innovation that is a crucial value creating engine in modern society.

#### **MSB407 Future Technology and Industry**

This course is to designed to reinforce and develop student abilities to apply technology and business(industry). In doing so we will focus on innovation of science and technology and its future industrial evolution. On each topic the class will focus on winning R&D excellence of KAIST research areas together with industrial perspective such as nuclear, electrical vehicle, biotechnology so forth.

#### **MSB408 Economics of Technology**

This course focuses on the effects of technology development on social welfare, social system, industrial structure, firm behavior in terms of economics perspective. This course deals with topics such as technology and economic development, technology and firm innovation, technology diffusion, technology innovation and

policy.

#### **MSB411 Investments**

The main objective of the course is to provide an overview of theories in investment such as portfolio theory and the valuation models. The valuation models include the Capital Asset Pricing Model and Arbitrage Model. Also, financial markets, financial instruments, and mutual funds and other investment companies are introduced. In addition, the financial derivatives such as options and futures securities and the related theory and markets are covered.

#### **MSB413 Industrial Organization**

This course studies the application of microeconomic theory in market and industries. It analyzes market and industries in the paradigm of market structure-conduct-performance. It introduces various concepts of market structure and conduct: natural monopoly, contestable market, entry barrier, economies of scale and scope, firm integration, price discrimination, tied sale, resale price maintenance market foreclosure, and other restraints on transactions. And it studies regulatory issues associated with the efficient and optimal market performances of industries.

#### **MSB415 Game Theory**

The aims of this course is to equip the students with the basic tools of game theory. This unit develops the basic models of strategic behavior in modern microeconomics. It builds a framework for the analysis in markets where the traditional price theory fails. Central in development are choice under uncertainty, choice in strategic situations and choice under asymmetric information. The theories are applied to the analysis of oligopolistic markets, markets for insurance, the theory of actions and other applications.

#### **MSB416 Future High-tech product development**

Korea's industry is at the crossroad of high-tech based manufacturing capabilities due to emergence of Internet paradigm. This course looks at the issues associated with Korea's future high tech development strategy to adopt into rapidly changing environment IT paradigm. The focus of learning in this course is to provide students with an appreciation 1) understanding asia's high tech development characteristics, 2) Korea's past development of high tech development strategy and its characteristics, 3) Development methods of future high tech product development, 4) Understand future technology, society.

#### **MSB421 High-Tech Human Resources Management**

This course will address the philosophies and practices of human resources management in High-tech. Students will learn the basic functions of HRM including recruitment, selection, performance evaluation, development, compensation and others.

#### **MSB431 Managerial Accounting**

This course is designed to understand cost flows, costing procedures, and accounting systems providing cost and management performance data. In addition to the understanding, students are also able to enhance the management process knowledge by integrating various cost and performance data to management decision makings.

#### **MSB436 Marketing Research**

Marketing research serves as a central basis for marketing strategy and firm profitability. Therefore it is critical for a manager to understand marketing research and to be able to specify what needs to be studied, how to study it, and how to interpret the results. This course presents an overview of marketing research in terms of needs, definition, process, analysis and report.

#### **MSB440 Legal Aspects and Cases of Entrepreneurship**

This course is taught by a legalist who is in charge of science and technology venture enterprise with case studies. This course introduces legal conflict cases about laws related to science and technology and venture enterprise and administration.

#### **MSB441 Patent Law and Management**

Intellectual properties including patent right are studied through this class to be proceeds from research activities of

individuals and entrepreneurs. Studies are focused on procedure of obtaining the patent right from research activities to issue of letters patent and management on how to benefit from IP rights after granted or registered.

#### **MSB443 Negotiation and Contention Management**

Negotiation and contention management 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.

#### **MSB446 Supply Chain Management**

The basic theory of supply chain management will be introduced from a knowledge management viewpoint. Main topics of the lecture will be focused on the management of supply chain which is the infrastructure of off-line manufacturing and the introduction of various cases in order to analyze the strategic cooperation of on-off line industry.

#### **MSB450 Entrepreneurship & Venture Business**

Entrepreneurship and venture business has an important role in training entrepreneurship to science and engineering students and in emphasizing the importance of venture business and enterprise. This course, after training students with basic concepts and entrepreneurship, will enhance the understanding of real-life venture businesses and enterprises through case studies.

#### **MSB451 Venture Formation Practice**

Venture is one of the core of the business in 21st Century. This course covers key issues in venture creation including business idea development, business model, growth strategy, business plan, and fundraising strategy, etc. Concurrently, students work in teams throughout the whole semester in simulating venture formation, which ends up with business plan presentation at the end of the semester. Some successful entrepreneurs and venture capitalists will be invited in the class to share their experiences and insights.

#### **MSB452 Business Model**

Powerful business model will be a prerequisite for the success of business idea in business reality. Effective business modelling is supported by knowledge and insights on market opportunity and firm competences. This task requires the essential parts of theoretical frameworks of diverse fields of business administration such as the understandings of innovation, market, strategic focus, organizational competences, etc. Special attention could be paid to disruptive business or internet business model. The class will be organized to introduce major types of business models and listen to onsite experience and insightful understanding of business managers.

#### **MSB454 Information Policy**

This course focuses on the impact of informatization to socio-economic environment and organizational restructuring in business arena and the historical consideration of government informatization policies. In particular, this course introduces the change of informatization policies of advanced countries and the other contender countries in the newly emerging trends of internet paradigm, centered on electronics commerce.

#### **MSB455 Service Engineering**

This course will provide the concept of Service Engineering through lecture and practical exercise. Students will learn : (1) how to design service functions of manufactured product (2) how to develop product-service systems in manufacturing industry and (3) how to analyze service life cycle.

#### **MSB456 Knowledge Business**

This course will provide the concept of Knowledge Business through lecture and practical exercise. Students will learn : (1) how to visualize knowledge (2) how to manage and utilize knowledge in organization and (3) how to design knowledge business cycle with multiple viewpoints and purposes.

#### **MSB458 Web Technologies and Business Strategies**

This course is designed to provide the strategies and development of business applications using SOA and web services for students. Students will understand the fundamental concepts of business processes and SOA and get hands-on experiences by doing a group project. In addition, the course includes not only SOA

technologies but also organizational opportunities, challenges, and managerial implications of SOA.

**MSB472 China's Economic Development**

This course deals with rapid development of Chinese economy and its impacts on other countries including Korea. Technology, economy, history, culture, socio-political issues will be discussed in order to find a win-win strategy between China and Korea.

**MSB481 Special Topics I in Business and Technology Management**

This course studies both current trend in technology of each industry and recent trend in technology management and academic researches on technology management. This course is offered to cover additional business and technology management area which is not covered by regular courses. It will be opened flexibly.

**MSB482 Special Topics II in Business and Technology Management**

This course studies the recent trend in technology management through the introduction of current trend in technology and case studies for each industry (or sector) for undergraduate students of Business and Technology Management major. This course is offered to cover additional business and technology management area which is not covered by regular courses. It will be opened flexibly.

**MSB483 Special Topics III in Business and Technology Management**

This course studies the recent trend in technology management through the introduction of current trend in technology and case studies for selected specific industry (such as IT or BT sector), and literature research. This course is offered to cover additional business and technology management area which is not covered by regular courses. It will be opened flexibly.

**MSB491 CEO Seminar**

This seminar is open to KAIST students. Invited speakers will be renowned Chief Officers e.g. CEO, CIO, CTO, CFO, etc.) in domestic and international corporations. Through this lecture, students will acquire leadership in business and economics.

**MSB493 Practicum Project**

With guidance of an faculty advisor, a project team with a group of 4-5 students who have completed core business courses conduct a small consulting project for an organization with a business problems, and write a final report for the organization.

**MSB493 S&T Biz Colloquium**

Technology management major students are required to take double major in science technology. In doing so this course would provides on overview of department's objective, and introduction to the study of science and technology. In particular their technological innovation in its fields, major research challenges, industrial linkages will be studied by inviting KAIST's department chair.

**ENP430 Entrepreneurial Law**

Acquiring fundamental knowledge on corporate law, contract law, labor law and antitrust/ fair trade law, which are essential for operating a company, with the aim to cultivate capability to apply such laws to real world cases, not merely memorizing law provisions.