

Technological Entrepreneurship Education: The Korean Experience

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Abstract

This paper presents successful experiences in technological entrepreneurship development in the Republic of Korea. Korea Advanced Institute of Science and Technology (KAIST) has been a major source of highly successful technical entrepreneurs since the 1980s. With the establishment of KAIST TBI-TIC (Technology Business Incubator / Technology Innovation Center) in 1994, KAIST started entrepreneurship development programs for potential entrepreneurs and real world entrepreneurs. Especially KAIST Graduate School of Management (KGSM) has started Advanced Venture Management (AVM) program in 1998, as the first executive program specifically for entrepreneurs in Korea. This four-month program has gained very good reputation among entrepreneurs and venture capitalists in Korea. This paper will explain successful experiences of AVM program and present policy implications for other developing countries.

Biography

Zong-Tae Bae is an Associate Professor of entrepreneurship at the Graduate School of Management at Korea Advanced Institute of Science and Technology (KAIST). He received a B.S. degree in Industrial Engineering from Seoul National University, and a Ph.D. degree in Management Science from KAIST in 1987. He served as a visiting faculty at the School of Management, Asian Institute of Technology in Thailand from 1989 to 1991. Also he spent one year at the Stanford Business School as a visiting scholar from 1999 to 2000. His research interests include various aspects of R&D/technology and venture management. He has published several articles in *IEEE Transactions on Engineering Management*, *R&D Management*, *Journal of Product Innovation Management*, *Journal of Engineering Technology Management*, *Science & Public Policy*, *World Development*, *International Journal of Innovation Management* and *Technovation*. He has been involved in establishment and management of the KAIST Technology Business Incubator located in Taedok Science Town since 1992. He is a founder and director of the Advanced Venture Management program.

Technological Entrepreneurship Education: The Korean Experience

I. Introduction

As a new engine of technological innovation and economic development, high-tech ventures are attracting greater attention from government, industry and universities in Korea. Now fostering entrepreneurship and promoting new venture creation have become priority policy actions.

Korea Advanced Institute of Science and Technology (KAIST) has been a major source of highly successful technical entrepreneurs since 1980s. With the establishment of KAIST TBI-TIC (Technology Business Incubator / Technology Innovation Center) in 1994, KAIST started entrepreneurship development programs for potential entrepreneurs and real world entrepreneurs.

Recent years, many new ventures have been spun off from university, industry and government-sponsored research institutes. KAIST, as a leading science and technology (S&T) university, has been a pioneer in cultivating entrepreneurs and educating entrepreneurship in Korea. Also the higher rate of new venture creation from spinning off from universities is being expected in the future, because universities are considered as sources of incubating organizations in Korea.

Especially KAIST Graduate School of Management (KGSM) has started Advanced Venture Management (AVM) program in 1998, as the first executive program specifically for entrepreneurs in Korea. This four-month program has gained very good reputation among entrepreneurs and venture capitalists in Korea. This paper will explain successful experiences of AVM program and present policy implications for other developing countries.

II. Theory and Practice of Entrepreneurship Development

1. Definitions of Entrepreneurship

The term “entrepreneurship” has become a well-defined domain of management. Entrepreneurship is defined as “the pursuit of opportunities regardless of the resources currently controlled” (Stevenson et al., 1994). The key concepts of entrepreneurship can be explained as follows:

- 1) Strategic orientation
- 2) Commitment to opportunity
- 3) Commitment of resources
- 4) Control of resources
- 5) Management structure
- 6) Reward philosophy

2. Entrepreneurship Development Programs

Many universities have entrepreneurship programs. Stanford University is operating Center for Entrepreneurial Studies. Recently Professor Karl H. Vesper of University of Washington and Professor William B. Gartner of University of Southern California conducted an intensive survey on University Entrepreneurship Programs, which provide a convenient source of information about university programs in entrepreneurship. They surveyed 126 schools that grant a four-year or graduate degree in conjunction with entrepreneur program. The results shows that a total of 104 out of the 126 responding four-year schools seemed to have programs truly focused on entrepreneurship. There was still a wide range of programs, however, from schools like Iowa and Wichita State which clearly had many entrepreneurship courses to those which squeaked by the threshold of three courses by counting small business management as one of them. Table 1 lists courses that, seemed to us, were most likely focused on start-up or entry into business. Table 2 lists courses that were primarily oriented toward the management of ongoing firms.

--- [Insert Tables 1 and 2 around here.] ---

In spite of many entrepreneurship courses for undergraduate and graduate programs, a limited executive program on entrepreneurship can be found. They offer an executive program as a form of seminar and intensive short courses such as Babson College.

KAIST AVM program is very unique in Korea as well as in the world. The education model should be developed and diffused into other universities especially into the universities in the developing economy.

III. History and Objectives of KAIST AVM Program

1. Need for AVM Program

Within a few years after its creation, a venture firm goes through the most vulnerable stage that will ultimately determine the success of the firm. It is this stage where the management knowledge and skills are in crucial needs. In response to these needs, KGSM has established **Advanced Venture Management (AVM) Program**, which was started in October 1998 as a four-month non-degree executive program.

2. Objectives of AVM Program

AVM program offers top executives of new high-tech ventures and venture capitalists the opportunity to learn management approaches and techniques in the process of [foundation – growth – maturity], and to understand management of innovation and change, principles and practices of opportunity identification, financing, marketing and venture capital operation.

3. History of AVM Program

AVM program started in October 1998 with 40 executives. Since then, four batches of executives have graduated, and the number of alumni has become 133. Table 3 shows the history of AVM program.

--- [Insert Table 3 around here.] ---

IV. Characteristics and Status of KAIST AVM Program

1. Characteristics of AVM Program

The management environment of the venture companies is vastly different from that of the mature firms. Creative problem solving ability is to be cultivated to meet the ever-changing role of the managers. The curriculum of the AVM program is balanced between theory and application and emphasizes participation and practices through lectures, business clinic sessions, case studies, and thesis thereby enhancing problem solving and adaptive abilities. AVM program can be characterized by two principles.

- 1) Differentiation with other executive programs in quality and target
- 2) Specialization and focus on entrepreneurship issues

AVM program is very unique and differentiated in several aspects. **First**, AVM program is specialized by participants. Targeted audiences of AVM program are entrepreneurs of venture companies who have been in business more than 3 years. Generally, they have engineering background and lack in management capability, which is a vital factor especially in the growing companies. This program is dedicated to entrepreneurs who already created new ventures.

Second, AVM program is specialized by program contents. AVM curriculum is customized to entrepreneurs in the growing companies. The curriculum pursues the balance between theory and practice, and focuses on venture management issues. Major contents include entrepreneurship and venture management, opportunity identification, changing roles of entrepreneurs, stage financing, high-tech marketing, technology management, creativity, business valuation and harvest issues. Also, Silicon Valley field trip is included as a part of AVM program.

Third, AVM program is specialized by education methods. In addition to lectures, AVM program has business clinic, case presentation and analysis, thesis writing, and field trip. Also participants meet every other week on Friday afternoon and Saturday morning, to give more flexibility to participating CEOs in time management. In Friday afternoon, one CEO of a successful high-tech venture is invited as a speaker and presents the case of the company. In the business clinic session of Friday night, all the participants discuss as a team on the situation of one company, and try to find solutions.

Fourth, AVM program is specialized by resource persons and education level. Speakers of AVM program are mainly industry experts to deliver practical knowledge, although KAIST professors teach management concepts. The contents of the program are very extensive, structured and of high level. The summary of the program is presented in Table 4.

--- [Insert Table 4 around here.] ---

2. Current Status of AVM Program

Currently 45 students are enrolled in the KAIST AVM program. Average age of participants' firms is 5, and average size of sales is about 3.4 billion Won (US\$ 3 million). Table 5 shows the participants' distribution by organization type.

--- [Insert Table 5 around here.] ---

3. Alumni Activities

The first batch of AVM graduates organized KAIST AVM Angel Fund immediately after graduation, and it became a new tradition of AVM alumni. They raised about US\$ 2 million and invested in more than 20 start-up companies. In addition, AVM Board activities have been carried out regularly. AVM program has graduated four batches and total number of alumni reached 133 as of July 2000.

4. Performance of AVM Program

This program received high reputation from industry, and applicants for this program are continuously increasing. The level of satisfaction from participants has been more than 4.5 out of 5 point.

V. Curriculum of KAIST AVM Program

1. Structure of Contents of AVM Program

AVM program was designed to differentiate with other general executive programs and to focus on the needs of new ventures. It is differentiated in terms of curriculum, target audience, education methods, and the level of learning. AVM program addresses all the stages of venture development, but puts more emphasis on growth stage. The structure, contents and time schedule of AVM program curriculum are shown in Table 6, Table 7 and Table 8, respectively.

--- [Insert Tables 6, 7 and 8 around here.] ---

2. Field Trip to Silicon Valley and LA

As a part of the program, AVM participants join one-week field trip to Silicon Valley and LA. The purposes of the field trip are 1) to understand the habitat and the operating mechanism of Silicon Valley, 2) to search strategies of U.S. market entry by Korean venture enterprises, and 3) to acquire hand-on experience and practical skills. The field trip program is composed of three parts.

1) Morning sessions: Special lectures by

- CEOs of start-ups (Korean-American or American)
- Venture capitalists and Stanford professors

2) **Afternoon sessions:** Site visits to

- Stanford University: campus tour and lecture
- Start-up companies (private companies, public companies)
- Supporting organizations: business incubators
- Subsidiaries of Korean large companies in Silicon Valley and LA

Through the field trip, participants could understand how Silicon Valley works. The typical schedule of the program is presented in Table 9.

--- [Insert Table 9 around here.] ---

3. **Regular Courses for Entrepreneurship**

In addition to AVM program, KAIST Graduate School of Management is offering two courses on entrepreneurship for graduate and undergraduate students. The contents of the courses are presented in Table 10 and Table 11.

--- [Insert Tables 10 and 11 around here.] ---

VI. **Operating Principles of KAIST AVM Program**

1. **Quality Control for AVM Program**

To maintain the quality of the program, the members of AVM program committee meet regularly. In the selection process for new students, AVM program accepts only qualified applicants even though it could not fill up regular T/O. Also the requirements for graduation – more than 75% of attendance and thesis submission – have been applied strictly.

2. **Learning as First Priority, Networking as Second Priority**

KAIST AVM program emphasizes integrative learning as the first priority, and networking as the second priority – NOT reverse. To pursue the principle, the following activities have been carried out. **First**, the program focuses on performance, through customized course design, course evaluation and feedback, and Silicon Valley field trip.

Second, the program focuses on practical application, through business clinic and case studies.

Third, the program provides opportunities for networking through several group activities, workshop and garden party. KAIST AVM program is expanding the network of entrepreneurs of growing companies, through the growing number of AVM alumni.

3. Financially Self-sufficient Operation

KAIST AVM program has been contributing financially to KAIST Graduate School of Management. Tuition fee for the program is 5 million Won (US\$ 4,500).

VII. Future Directions for Entrepreneurship Program

1. Problems of Entrepreneurship Programs

There can be several problems faced by entrepreneurship education. First, **entrepreneurs** can be sources of problems, such as: 1) lack of understanding on the importance of management, 2) lack of understanding on their own management capabilities, 3) lack of time to learn, and 4) misunderstanding on executive program

Second, some problems arise from **training organizations**, such as: 1) lack of contents and experience, 2) difficulties in finding eligible resource persons, and 3) lack of PR activities.

2. Directions for Entrepreneurship Program

To develop a successful entrepreneurship program, some approaches and actions are needed such as: 1) developing specialized program, 2) analyzing success/failure cases, 3) changing mindset of entrepreneurs, and 4) changing attitudes of government.

First, specialized entrepreneurship programs targeted for each entrepreneur group should be developed. For example, training programs for CEOs, middle managers, and potential entrepreneurs need to be designed differently.

Second, in designing the program, analyses of successful or unsuccessful programs can bring useful lessons. Through the analysis, key success factor can be identified. AVM experience shows that the reputation of training organization, the quality of the program and resource persons, and alumni activities are some of key success factors.

Third, some entrepreneurs think they have some years of experience in managing companies and they know how to manage the company. But the most widely recognized reason for denied business plans by venture capitalists is the lack of management

capability. The CEOs of ventures should be adaptive to the rapidly changing environment, and the capability for change management and entrepreneurial management are very important assets for venture CEOs. They should be ready to learn management.

Fourth, government officials could be very reluctant to support an entrepreneur program for “growing” or already grown companies. Because they think the entrepreneurs of growing companies are already rich, they are active only in promoting venture formation and in supporting potential entrepreneurs. But entrepreneurs of growing venture companies need several supports from infrastructure and habitat, and indirect policy support for entrepreneurship program are needed.

VIII. Conclusions and Implications

1. Conclusions

AVM program puts more emphasis on practical and collective learning rather than human networking. To do this, business clinic session has been devised and participating CEOs can discuss their problems in each group. Development of success and failure cases is needed for more practical learning in the local context.

Summing up, this paper discussed successful experiences of AVM program and policy implications for other developing countries. KAIST Advanced Venture Management (AVM) program, the first executive program specifically for entrepreneurs in Korea, has gained very good reputation among entrepreneurs and venture capitalists in Korea. But it still has many unsolved problems to enhance the quality of the program.

2. Implications for Developing Countries

Some implications for other developing countries can be drawn from Korean experience and the case of AVM program.

First, although entrepreneurship development needs appropriate habitat and culture of community, diverse entrepreneurship programs are needed to promote entrepreneurship and new venture creation in developing countries.

Second, cultivating potential entrepreneurs and developing entrepreneurs can be the starting point of entrepreneurship development in developing countries. In designing the programs, the objectives and targets of trainees should be clarified, and program contents should vary according to participants' needs.

Third, university-industry cooperation is the most important part of success in designing and implementing entrepreneurship development program. University should take very important roles in shifting traditional and conservative society into dynamic and entrepreneurial society. Entrepreneurship course should be one of the core courses for engineering and business school students in the universities.

Fourth, entrepreneurship education should be very practical and it needs commitment from industrial experts. To pursue this, professors and industry leaders should offer entrepreneurship programs with joint efforts.

Fifth, because high-tech ventures should compete in global markets, entrepreneurship development programs should contain global perspectives and increase the expose to global business environment.

Sixth, learning on successful experiences from Silicon Valley and other successful high-tech regions can be useful, but the programs need well-organized approaches based on the cooperation with key persons and institution in those high-tech regions.

Seventh, cooperation among developing countries in entrepreneurship program development and research can promote opportunity identification and cooperation in the real business world.

3. Guidelines in Designing Entrepreneurship Programs

In designing entrepreneurship program, the following programs with different targets, lengths, and contents can be considered.

- 1) Degree programs (1-2 years)
 - Interdisciplinary Entrepreneurship Program
 - Venture Management Program (Venture-MBA)
- 2) Non-degree Executive Programs (1-4 months)
 - Advanced Venture Management Program
 - Venture Capitalist Training Program
- 3) Short-term Training Programs (1-3 weeks)
 - Technological Entrepreneurship Seminar
 - Potential Entrepreneurs Internship Program
 - New Venture Forum

For each program, some frameworks will be very useful in designing and sequencing the detailed contents on entrepreneurship. For example, Timmons' model (1999) of

entrepreneurial process can be a good example of framework as shown in Figure 1.

--- [Insert Figure 1 around here.] ---

Harvard Business School, Babson College, and Stanford Business School have been very successful in entrepreneurship education. Entrepreneurship management program at Harvard includes following topics: 1) entrepreneurial finance, 2) entrepreneurship, creativity and organization, 3) real property asset management, 4) venture capital and private equity, and 5) entrepreneurial marketing.

Also Babson College has designed the entrepreneurship curriculum according to the stages of venture development, such as: 1) before founding, 2) at founding, and 3) after founding.

The AVM experience shows some guidelines in designing entrepreneurship program, such as: 1) designing the curriculum based on objectives and target of the program, 2) inviting prominent industrial experts as speakers and for case presentation, 3) building human networking through team activities, 4) providing global perspectives through field trip to Silicon Valley or other high-tech regions, as one-week intensive program (15-20 lectures or site visits), and 5) promoting application of knowledge into business realities through individual research.

Recently, on-line education for larger group of audiences emerges as new opportunities for entrepreneurship education. Also, intensive internship program evolves and some companies are looking for business opportunities on executive education. Entrepreneurship education is getting greater attraction from universities and industry.

References

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2. Howard H. Stevenson, Michael J. Roberts, and H. Irving Grousbeck, *New Business Ventures and the Entrepreneurs*, Irwin, Burr Ridge, Fourth Edition, 1994.
3. Jeffery A. Timmons, *New Venture Creation: Entrepreneurship for The 21st Century*, McGraw-Hill, Boston, Fifth Edition, 1999.

Table 1. Frequency Count of Entrepreneurship Courses

Course	Number of Schools Offering				
	Total	Undergrad	Grad	Both	Not Sure
Entrepreneurship, Start-up	120	16	35	63	6
Venture Finance	83	19	45	16	3
Venture Plan Writing	42	7	21	12	2
Venture Marketing	35	4	22	8	1
Technology Transfer	30	4	21	5	0
Product Development	19	0	18	1	0
Opportunity Finding/Screening	24	2	12	8	2
International Venturing	21	6	11	1	3
Innovation Evaluation	19	4	15	0	0
Law For Entrepreneurs	18	3	12	2	1
Creative Thinking	16	4	10	2	0
Entrepreneurship Research	12	2	9	1	0
Entry via Acquisition	11	0	10	1	0
Franchise Development	10	3	3	4	0
Venturing in Arts, Software, Etc.	9	2	6	1	0
New Product Marketing	8	1	6	1	0
Entrepreneurship for bankers, biologists, etc.	7	1	2	4	0
Entrepreneurship for non-business majors	6	3	1	2	0
New Venture Lab	5	1	4	0	0
Entrepreneurial Economy	4	1	3	0	0
Social Entrepreneurship	3	0	2	1	0
Sociology of Entrepreneurship	2	0	1	1	0
Total	504	83	269	134	18
Percent	100%	16%	53%	27%	4%

Table 2. Ongoing Firms Management Courses

Course	Number of Schools Offering				
	Total	Undergrad	Grad	Both	Not Sure
Small Business Management	72	32	15	20	5
Field Project, Consulting	42	17	15	8	2
Starting & Running	38	8	19	9	2
Managing Fast-Growing Firms	37	5	23	8	1
Family Business	25	9	6	8	2
Corporate Venturing	24	5	15	4	0
Internships	16	5	7	4	0
Comprehensive Analysis/Strategy	10	2	7	1	0
MIS for Small Business	8	4	4	0	0
Joint Ventures	5	0	5	0	0
HRM for Small Business	4	1	2	1	0
Entrepreneurship in Service Organizations	4	0	3	1	0
Turnarounds	3	0	3	0	0
Total	288	88	124	64	12
Fractions	100%	31%	42%	23%	4%

Table 3. History of AVM Program

1) First Batch AVM Program

- October 1998 First Batch Program Started (40 executives)
- October 1998 Site Visit & Workshop
- January 1999 Silicon Valley Field Trip
- February 1999 Graduation (33 executives)

2) Second Batch AVM Program

- March 1999 Second Batch Program Started (40 executives)
- March 1999 Site Visit & Workshop
- May 1999 Silicon Valley Field Trip
- June 1999 Alumni Seminar
- July 1999 Graduation (32 executives)

3) Third Batch AVM Program

- September 1999 Third Batch Program Started (40 executives)
- September 1999 Site Visit & Workshop
- November 1999 Silicon Valley Field Trip
- February 2000 Graduation (29 executives)

4) Forth Batch AVM Program

- March 2000 Fourth Batch Program Started (40 executives)
- March 2000 Site Visit & Workshop
- May 2000 Silicon Valley Field Trip
- July 2000 Graduation (39 executives)

5) Fifth Batch AVM Program

- August 2000 Fifth Batch Program Started (45 executives)
- September 2000 Site Visit & Workshop
- October 2000 Silicon Valley Field Trip
- December 2000 Graduation

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Table 4. AVM Program Summary

<p>1) Target Audiences of AVM Program</p> <ul style="list-style-type: none"> • CEOs of new ventures • Venture capitalists and business angels • Executives of internal corporate ventures of large firms • CEOs of middle-sized companies who want to reform a firm into new venture • Government officials and social authorities who are interested in nurturing new venture firms <p>2) Program Period: Twice a Year</p> <ul style="list-style-type: none"> • Spring semester (March - June) • Fall semester (September – December) <p>3) Structure of Program</p> <ul style="list-style-type: none"> • Total of 63 hours in 4 months & Site Visit of Silicon Valley for 7 nights / 8 days • The class meets Friday and Saturday of every other week (6 hours on Friday, 3 hours on Saturday) <p>4) Number of Participants per Batch</p> <ul style="list-style-type: none"> • 40 persons per batch

Table 5. Typical Demographics of AVM Participants: Distribution by Organization

Type of Organization	Number	Percentage (%)
High-tech Ventures	30	75
Large Corporations	2	5
Venture Capitalists	4	10
Supporting Firms	4	10
Total	40	100

Table 6. Structure of AVM Program Curriculum

<p>1) Special Lectures</p> <ul style="list-style-type: none">• Acquiring Expertise in Each Field• Introduction to Core Theory and Methodology in Venture Management <p>2) Case Study</p> <ul style="list-style-type: none">• The Foundation & Growth Process of Successful New Ventures• Learning through Case Analysis <p>3) Business Clinic</p> <ul style="list-style-type: none">• Learning Business Clinic• Talking about the Problems confronted in Real Situation• Problem Identification and Solution Search (Based on Worksheet) <p>4) Thesis</p> <ul style="list-style-type: none">• Applying acquired knowledge into Real World Business• Identifying problems and Finding Solutions <p>5) Networking Activities</p> <ul style="list-style-type: none">• Networking & Synergy Creation through Alumni Activities• Mutual Understanding and Cooperation through group activities• Invitation and linkage to Professional Group for New Ventures <p>6) Field Trip to Silicon Valley</p> <ul style="list-style-type: none">• Special Lectures: CEOs of start-ups & Venture Capitalists• Site Visits: Start-up Companies, Venture Capital, Law Firm, Business Incubator• Visit to Stanford University: campus tour and lecture• Discussion and Networking among participants

Table 7. Contents of AVM Program Curriculum

1. KAIST AVM Curriculum (I): Content Approach

- **Who are you?**
 - Venture management and Entrepreneurship (the 1st week)
- **Why to do?**
 - Strategic management (the 3rd week)
- **What to do?**
 - Opportunity recognition (the 2nd week)
- **How to do?**
 - Marketing (the 4th week)
 - Fund raising, Accounting, Financial Analysis (the 5th week)
 - Understanding the Silicon Valley (the 6th week)
 - Management of Technology and Organization (the 7th week)
- **When to do?**
 - Management of Growth and Harvest (the 8th week)

2. KAIST AVM Curriculum (II): Process Approach

- **Setting Vision and Goals**
 - Venture Management & Entrepreneurship (the 1st week)
 - Strategic Management (the 3rd week)
- **Evaluating the Opportunity**
 - Identifying the Opportunity (the 2nd week)
- **Developing the Business Concept**
 - Marketing (the 4th week)
- **Building Venture Strategy and Assessing Required Resources**
 - Strategic Management (the 3rd week)
 - Fund raising, Accounting, Financial Analysis (the 5th week)
- **Acquiring Necessary Resources**
 - Fund raising, Accounting, Financial Analysis (the 5th week)
- **Managing the Venture**
 - Understanding the Silicon Valley (the 6th week)
 - Management of Technology and Organization (the 7th week)
- **Harvesting and Distributing Value**
 - Management of Growth and Harvest (the 8th week)

Table 8. KAIST AVM Program Curriculum for 2nd Batch (March – June, 1999)

Week	Date	Curriculum		
1 Venture Management	Mar 12 (Fri)	2:00-3:20	Orientation	Introduction to AVM Program
		3:30-4:50	Lecture I	Leadership and Changing Roles of Entrepreneurs
		5:00-6:00 7:00-9:00	Case Study Business Clinic	Case Analysis Methods and Thesis Writing Business Game
	Mar 13 (Sat)	9:00-10:20 10:40-12:00	Lecture II Lecture III	New Management Strategy of Korean New Ventures Entrepreneurship & Venture Management
2 Recognition of Business Opportunity (Workshop)	Mar 26 (Fri)	2:00-3:20	Site Visit	Visit to KAIST High Tech Venture Center
		3:30-4:50	Lecture I	Patent Strategy of New Ventures
		5:00-6:00 7:00-9:00	Case Study Business Clinic	PSD TECH Business Clinic (1): Lecture & Introduction of Company
	Mar 27 (Sat)	9:00-10:20 10:40-12:00	Lecture II Lecture III	Venture Promotion Policies in Korea Technology Innovation & Creativity Enhancement
3 Strategic Management	Apr 9 (Fri)	2:00-3:20	Lecture I	Competitive Analysis
		3:30-4:50	Lecture II	Strategic Management
		5:00-6:00 7:00-9:00	Case Study Business Clinic	LOCUS Business Clinic (2): Strategic Analysis
	Apr 10 (Sat)	9:00-10:20 10:40-12:00	Lecture III Lecture IV	How to Write Business Plan Case Study of Business Plan Writing
4 Marketing	Apr 23 (Fri)	2:00-3:20	Lecture I	High-Tech Marketing
		3:30-4:50	Lecture II	Marketing of New Ventures
		5:00-6:00 7:00-9:00	Case Study Business Clinic	MEDISON Business Clinic (3): High-Tech Marketing
	Apr 24 (Sat)	9:00-10:20 10:40-12:00	Lecture III Lecture IV	Marketing Strategy of New Ventures Internet Marketing
5 Financing	May 7 (Fri)	2:00-3:20	Lecture I	Financial Management for New Ventures
		3:30-4:50	Lecture II	Venture Capital
		5:00-6:00 7:00-9:00	Case Study Business Clinic	HUMAX Business Clinic (4): Financial Analysis
	May 8 (Sat)	9:00-10:20 10:40-12:00	Lecture III Lecture IV	Capital Flow Management of New Venture Valuation of High-Tech New Ventures
6	May 23 (Sun) to 30 (Sun)		Visit to Silicon Valley	
7 Organization /Technology Management	June 11 (Fri)	2:00-3:20	Lecture I	Management of Organization and Human Resources
		3:30-4:50	Lecture II	
		5:00-6:00 7:00-9:00	Case Study Business Clinic	TURBOTEK Business Clinic (5): Organization & Human Resources
	June 12 (Sat)	9:00-10:20 10:40-12:00	Lecture III Lecture IV	Strategic Management of Technology Life Corporation: New Paradigm of Management
8 Change Management	June 25 (Fri)	2:00-3:20	Lecture I	Informatization & Customer Value Creation
		3:30-4:50	Lecture II	M&A
		5:00-6:00 7:00-9:00	Case Study Business Clinic	HANDYSOFT Paper Presentation
	June 26 (Sat)	9:00-10:20 10:40-12:00	Lecture III Lecture IV	Service Competence in Mfg and Service Companies Korean Venture Management & Globalization

Table 9. Typical Schedule for Site Visit of Silicon Valley and LA

Date	Places	Time	Schedule
1st Day (Sun)	Seoul	Evening	Depart from Seoul
	SF San Jose	Afternoon	Arrive at San Francisco San Francisco Tour Move to San Jose
2nd Day (Mon)	San Jose	Morning	Special Lectures (I) (II) Silicon Valley: Past, Present and Future Roles of Venture Capitalists in Silicon Valley
		Afternoon	Site Visits (I) (II) Visit two start-up companies
3rd Day (Tue)	San Jose	Morning	Special Lectures (III) (IV) Silicon Valley Way: Management Style and Culture Most Common Mistakes of Start-ups
		Afternoon	Site Visits (III) (IV) Visit one business incubator Visit Stanford University Special Lectures (V) Silicon Valley and Stanford University
4th Day (Wed)	San Jose	Morning	Special Lectures (VI) (VII) What Makes Silicon Valley Unique: Case Study Strategies for Entering into the US Market
	LA	Afternoon	Site Visit (V) Visit one start-up company Move to LA
5th Day (Thu)	LA	Morning	Special Lectures (VIII) (IX) (X) Globalization of Korean Venture Companies Internet Business Wrap-up and Discussions
		Afternoon	Site Visits (VI) (VII) Visit one venture capital firm Visit one start-up company
6th Day (Fri)	LA	Morning	Free time
7th Day (Sat)	LA	Morning	Depart from LA
8th Day (Sun)	Seoul	Afternoon	Arrive at Seoul

Table 10. <Entrepreneurship and New Venture Creation> for Graduate Students

1) Course Overview

New Venture Creation (NVC) explores the skills and knowledge needed to design a new venture. Student teams are requested to design business concept and to prepare a business plan. NVC is offered as an elective course for students both in MBA program and in Ph.D. track. While the course stresses entrepreneurial start-ups, it is also relevant to those interested in general management, project management, business development and internal corporate venturing.

2) Course Objectives

New Venture Creation (NVC) focuses on how to design and launch an effective and sustainable new venture. The emphasis is on both concepts (the elements of a well-designed venture) and actions (how to plan and design a venture, write an effective business plan and implement it) required for successful start-up.

3) Course Contents and Organization

Team projects and classroom exercises (cases, panel discussions, and presentations) provide students multiple opportunities to examine both the large issues of venture design and the micro-level decision points of implementation that play a critical part in new venture creation. To provide students with the operational practices, professionals having experience in related fields are invited. The project requires each student team to develop a business plan that provides sufficient operational detail to show how a new product or service can be brought to market, as well as to create the strategic vision that will attract the resources needed for launching and growing the enterprise.

4) Results and Performance of the Course

NVC has been opened once a year since 1993. NVC has an enrollment of over 50 in each offering. Originally, this course is intended for students expecting to design and launch new ventures at some point during their careers. So, those who participate in this course have various educational backgrounds.

Table 11. <Entrepreneurial Management> for Undergraduate Students

1) Course Overview

Entrepreneurial Management (EM) explores the start-up process for new ventures and the issues faced in the growing stage. PEM introduces the concept of entrepreneurship and business strategies and management tools for solving the problems faced by venture firms at the growth stage. This course is intended for students who are interested in the process of starting and managing a new venture. This is an elective course for undergraduate students who have various academic backgrounds.

2) Course Objectives

The objectives of EM are to provide the comprehensive understanding of the entrepreneurship and the entrepreneurial process for new ventures, and to provide the opportunity to address the venture management practice in the real situation.

3) Course Contents and Organization

EM covers the entire spectrum of the entrepreneurial process from the development of the idea into a workable business model, to getting started and grow up and eventually harvesting. The contents include:

- Developing a framework for understanding and evaluating opportunity;
- Creating alternative strategies for resource acquisition;
- Facing the challenges associated with managing a growing enterprise; and,
- Harvesting value.

Students will build teams to analyze the management practices of a real venture case and create alternative strategies to cope with the problems faced by the company. Through these case studies, students will review the issues discussed in class.

4) Results and Performance of the Course

EM has been opened once a year from 1998. For each offering, over 60 students with various majors participate in this course.

Figure 1. Framework for Entrepreneurship Education

