Korea Advanced Institute of Science and Technology School of Business and Technology Management Course Syllabus, Spring 2019

Course Information

- Course Title: Technology Management and Corporate Finance
- Course Number: **MSB535 / ITM550** ***(Education 4.0)***
- Prerequisites:
- Meeting Time: 7-10:00pm, Thu.
- Classroom: #101, N22
- Course Web Pages: http://klms.kaist.ac.kr/

Instructor Information

- Name: Seung Hun Han, Ph.D.
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- Office Hours: Tue & Thu, 9 –11AM or by appointment
- TA: TBA

Course Objectives

Finance studies about the financial decision making, and it is important to make wise financial decisions in real world. Whether seeking a career in finance or not, a well-educated industry leader will be expected to have a broad understanding of 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 both firm valuation of currently listed firms and technology valuation of currently developed technology. Students are required to make presentations of both academic papers and firm & technology valuation project at the end of semester.

Course Description

MSB535 covers all of the major areas of corporate finance and provides training in the analytical tools and concepts for managers. A significant portion of the course will consist of problem solving and case studies regarding the topics and theory covered in each lecture. Considerable effort will be spent on learning Excel applications on each topic such as time value of money, financial statement analysis, and the mathematics of finance. These skills will be needed throughout the course and will have numerous applications in your real world career. The course, also, requires both term project and term paper. Term project requires valuation of selected firm and technology for all students. However, term paper requires either (1) academic research proposals related to corporate finance and your major field for BTM students, (2) case study for I&TM students, or (3) start-up valuation.

Course Materials

Required Text Book

***Corporate Finance*, 9th** Ed., McGraw-Hill, 2010, by Ross, Westerfield, and Jaffee (RWJ)

Finance for Engineers: Evaluation and Funding of Capital Project, 1st Ed., Springer-Verlag, 2008, by Cundwell

Additional Reading

1. Corporate Finance Theory, Addison Wesley, by Megginson, W.L. (M)
2. Attached list of literature on major corporate finance
3. Attached list of case studies

Term Projects

I. Firm Valuation

1. Firm Specific Analysis
   (1) Business Strategy Analysis - past
   (2) Financial(Accounting) Analysis - past
   (3) Prospective Analysis
2. Industry Analysis
   → Forces Driving Industry Competition
   - Industry Competitors: Rivalry Among Existing Firms
   - Potential Entrants: Threat of New Entrants
   - Suppliers: Bargaining Power of Suppliers
   - Buyers: Bargaining Power of Buyers
   - Substitutes: Threat of Substitute Products or Services
3. Reading Markets: PEST
   - Political Environment: i.e., regulation
   - Economic Environment: i.e., business cycle
   - Sociological Environment: i.e., social cognition
   - Technological Environment: i.e., the Internet
4. Valuation
   - Market Approach
   - Income Approach
5. Conclusion
   - Short- and Long-term
   - Buy or Sell

Term Paper (Case Study)

The purpose of term paper is to draw big picture of research paper in finance such as selecting topics, reviewing the related previous literature, collecting data, testing empirical analysis, interpreting the results, and making conclusion. The proposal should be submitted in 6 weeks from the beginning of the class. The proposal must include the motivation, concrete theoretical background based on previous literatures, hypothesis, methodology, data availability, and research schedule. I strongly recommend start the preparation of proposal 'right now' to meet the deadline, and I also strongly encourage you to discuss about the term project topics with me.

Presentation

- Individual based term paper/case study.
- Group based firm & technology valuation.

Academic Integrity

In this course complete honesty in expected. The minimum penalty for cheating is a grade of "F" in this course and an academic dishonesty notation on the student's permanent record. In most cases, I will do my best the student **expelled from KAIST**.

Grading Policy

Presentation	10%
Firm Valuation Project	20%
Tech Valuation Project	10%
Term Paper (Case Study)	20%
Midterm Exam	20%
Final Exam	20%
Attendance/Participation	? %
Total	100%

Grading Scale:

97 – 100 %	A+
93 – 96 %	A0
90 – 92 %	A-
87 – 89 %	B+
83 – 86 %	B0
80 – 82 %	B-
77 – 79 %	C+
73 – 76 %	C0
70 – 72 %	C-
67 – 69 %	D+
63 – 66 %	D0
60 – 62 %	D-
0 – 59 %	F

Corporate Finance Literature

- Capital Structure
- Securities Issuance
- Payout Policy
- Corporate Governance
- Diversification and Internal Capital Markets
- Corporate Control Markets (M&A)
- Product Market Competition and Financial Policy

Tentative Course Schedule

Week	Topic	Chapter
1	Introduction Financial Statement/Financial Ratios	Ch1 / Ch2
2	Research Proposal Guideline & Example / Valuation Example	Handout
3	Cash Budget/Pro Forma Statement/Time Value of Money	Ch3 / Ch4
4	Bond / Bond Valuation / Stock	Ch5/ Ch6
5	Stock Valuation / Capital Budgeting Technique	Ch6/ Ch7
6	Capital Budgeting and Cash Flows / Capital Budgeting of Technology	Ch8
7	Risk and Returns / Portfolio	Ch9 / Ch10 / Handout
8	Midterm Exam	
9	CAPM / Cost of Capital	Ch11 / Ch12 Ch15
10	/ Capital Structure / Dividend Policy	Ch6 / Handout
11	Corporate Valuation / Technology Valuation	Handout
12	Venture Capital	Handout
13	Derivatives Markets	Ch17 / Handout / Ch29
14	Special Topics: M&A / Corporate Divestitures / Venture Capital / Venture Valuation / IPO	Handout
15	Project Presentation	Handout
16	Research Paper Presentation	

This schedule is subject to change if necessary

Reading List

W	Topic	Reading List
1	Introduction / Financial Statement	- Journal: “A survey of blockholders and corporate control” Economic Policy Review - Case: The street ratings - Walt Disney examples - Book: The Essays of Warrant Buffet
2	Research Proposal Guideline & Example / Valuation Example	- Journal: "Spillover Effect of Sport Team Performance of the Value of Corporate Sponsors and Affiliated Firms," (2016) International Journal of Sport Finance - Journal: “Impact of Environmental Performance on Firm Value for Sustainable Investment: Evidence from Large U.S. Firms,” (2016) Business Strategy and Environment - Case: Hynix
3	Cash Budget / Pro Forma Statement/Time Value Money	- Journal: “Management views on corporate cash holdings” (2010) Journal of Applied Finance - Book: The Interpretation of Financial Ratios
4	Bond / Bond Valuation /Stock	- Journal: “Some New Evidence On Why Companies Use Convertible Bonds” (1997) Journal of Applied Corporate Finance) - Journal: “What Do We Know About Stock Repurchases?” (2000) Journal of Applied Corporate Finance) - Book: Financial Intelligence
5	Stock Valuation / Capital Budgeting	- Journal: “Survey and analysis of capital budgeting methods” (1978) Journal of Finance - Case: Analysts’ Notes on Apple - Case: Target Corporation
6	Capital Budgeting of Technology	- Case: Santa Clara HEPS / Mobile Crusher / Filtration Joint Venture / Baskersfield Water Pumps / Combine Harvester / PetroGen Oil Field and Petroleum Refinery - Case: Flexcom
7	Risk and Returns / Portfolio	Book: Valuation
8	Midterm Exam	
9	CAPM / Cost of Capital	-Journal: “ An intertemporal CAPM with higher-order moments,” (2017) North American Journal of Economics and Finance - Journal: “Using discounted cash flow analysis in an international setting: a survey of issues in modeling the cost of capital,” (1998) Journal of Applied Corporate Finance - Case: “Boeing Corporation Case” (DARDEN Business Publishing University of Virginia) - Case: “Pioneer Petroleum Corporation Case” (Harvard Business School Case)
10	Capital Structure / Dividend Policy	- Journal: “Market timing and capital structure,” (2002) Journal of Finance - Case: RJR Nabisco: A Case Study of a Complex Leveraged Buyout”

		- Journal: "Earnings, book values, and dividends in equity valuation," (1995) Contemporary Accounting Research
11	Corporate Valuation / Technology Valuation	- Case: Flexcom2
12	Derivatives Market	- Book: Stress Test – Financial Crisis in 2008
13	Special Topics: M&A, Divestitures, Venture Capital, Venture Valuation & IPO	- Case: M&A example: (1) "Stock or Cash? The Trade-Offs for Buyers and Sellers in Mergers and Acquisitions" Harvard Business Review) (2) "The Hilton-ITT WARS" DARDEN Business Publishing University of Virginia) (3) " Equity Carve Out - "Chipotle Paradox" Journal of Applied Finance Issues 1 & 2, 2009) -Case: Venture Capital (1) " How venture capital works" Harvard Business Review) (2) "The consequences of entrepreneurial finance Evidence from angel financings". (2011). The Review of Financial Studies, 27(1), 20-55. - Case: IPO (1) Samsung BioLogics
14	Project Presentation	
15	Research Presentation	
16	Final Exam	