DIGITAL TECHNOLOGIES AND BUSINESS (S.I.)

ENGIN668	3 Credits
Professor	*Professor Dr. DongBack Seo*
Assitant	-

COURSE DESCRIPTION

All organizations have worked with digital technologies whether their involvements in digital technologies are heavy or not. Some organizations use digital technologies more efficiently and effectively than others, which can influence their businesses. It is challenging for organizations to utilize digital technologies efficiently and effectively due to many factors such as the rapid change of IS/IT (Information Systems / Information Technologies), the cultural environments of organizations, and the enormous cost of the implementation and maintenance of digital technologies. Thus, it is significant for organizations to consider all these variables in developing or adopting digital technologies. It is also challenging to study a digital eco-system because it is rapidly evolving. Using a digital technology, a new business model emerges. Sometimes, this kind of new business model conflicts against the existing business model. For example, the business model of Uber is disturbing a taxi business and relevant regulations.

I.- COURSE LEARNING OBJECTIVES

Students need to understand not only potential effects of newly introduced digital technologies but also research trends on these relevant topics. This course provides students to think about these phenomena and how to analyze them.

1. Students gain general knowledge about digital technologies and digital eco-system.	
2. Students can be able to formulate relevant issues through reviewing business articles and participating discussions during classes.	
3. Students learn how to conduct analyzing and investigating a certain topic relevant digital technologies in business.	
4. Students will improve their analytical skills for the ongoing developments of digital technologies in business.	

5. Stuents achieve how to develop their logics and arguments through discussing and presenting their analyses.

II.- CONTENTS

Topic	Content	Mandatory Reading	Activities
1	Digital Business Convergence	See below (can be provided)	Presentation, discusión, etc.
2	What is Innovation?	See below (can be provided)	Presentation, discusión, etc.
3	Innovation Management	See below (can be provided)	Presentation, discusión, etc.
4	Power of Innovation (IPR)	See below (can be provided)	Presentation, discusión, etc.

III.- METHODOLOGY, EVALUATION AND BASIC REGULATIONS

3.1.- Methodology:

Lectures + Students' presentations + Students' participations in discussion

3.2.- Evaluation:

Students' presentations = 30% + Students' participations = 20% + Assignments + Final report =50%

3.3.- Basic Regulation

1. Students must have at least 75% attendance in the course to pass it.
2. Classes will be on the days and times indicated by the program management.
3. For each class, students must have read and studied the corresponding bibliography in advance.
4. The grading of all evaluations will be done with a grade from 1 to 7.
5. The professor reserves the right to add, delete or replace bibliography during the course of the program if he/she deems it appropriate for the proper progress of the subject.
6. The unjustified absence of a student from a requirement will be graded 1.
7. It is important to emphasize that each student must assume his or her own responsibility in completing the program, especially in relation to:
    a. Be up to date on the development of the subject and the various instructions given by both the teacher and the course coordination. For example, absence from a class session does not exempt you from the academic obligations established that day.
    b. Ensure faithful compliance with the dates and deadlines established for the different evaluation activities. Once set and known, they will not be modified.
    c. Obtain the support material indicated for the chair when applicable.
8. All works presented during the program will only have value to the extent that their author is able to explain and support them personally. Deliveries that contradict the above are not

accepted. Any medical justification corresponding to non-attendance to a requirement must be presented through the regular channels established by the University.

9. Any form of copying and/or plagiarism is penalized and if this situation is identified, the respective disciplinary procedure will be followed.

IV.- BIBLIOGRAPHY

Mandatory Readings

Class 1

1. Seo, D. (2017) Digital Business Convergence and Emerging Contested Fields: A Conceptual Framework, Journal of the Association for Information Systems (JAIS), 18, 10, pp. 687-702.

2. Lee, J. and Seo, D. (2016) Crowdsourcing Not All Sourced by the Crowd: An Observation on the Behavior of Wikipedia Participants, Technovation, 55-56, pp. 14-21.

3. Dolfsma, W. and Seo, D. (2013) Government Policy and Technological Innovation - A Suggested Typology, Technovation, 33, 6-7, pp. 173-179.

Class 2

1. Foster, Richard N. (1986) Innovation, The Attacker's Advantage, Summit Books, Simon and Schuster, New York (NY). Chapter 4. The S-curve: A New Forecasting Tool, pp. 88-111.

2. Tushman, M.L. and Anderson, P. (1986) Technological Discontinuities and Organizational Environments, Administrative Science Quarterly, 31, pp. 439-465.

3. Utterback, James (1994) Mastering the Dynamics of Innovation, Harvard Business School Press. Chapter 2 Dominant Designs and the Survival of Firms, pp. 23-37 and pp. 91-96.

4. Suarez, F.F. and Utterback, J.M. (1995) Dominant Designs and The Survival of Firms, Strategic Management Journal, 16, pp. 415-430.

Class 3

1. Henderson and Clark, (1990) Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms, Administrative Science Quarterly, 35, pp. 9- 30.

2. Christensen, C. M. and Rosenbloom, R. S. (1995) Explaining the Attacker's Advantage: Technological Paradigms, Organizational Dynamics, and the Value Network, Research Policy, 24, 2, pp. 233-257.

3. Bower, Joseph L.; Christensen, Clayton, M. (1995) Disruptive Technologies: Catching the Wave, Harvard Business Review, Jan/Feb95, Vol. 73 Issue 1, pp. 43-54.

4. Moore, G. (1999) Crossing the Chasm, Harper Collins: NY, pp. 12-21 and pp. 29-40.

Class 4

1. Rivette, K. G. and Kline, D. (2000) Discovering New Value in Intellectual Property, Harvard Business Review, 78, 1, pp. 54-66.

2. Lea, G. and Hall, P. (2004) Standards and Intellectual Property Rights: An Economic and Legal Perspective, Information Economics & Policy, 16, 1, pp. 67-89.

3. Blind, K. and Thumm, N. (2004) Interrelation between Patenting and Standardisation Strategies: Empirical Evidence and Policy Implications, Research Policy, 33, 10, pp. 1583- 1598.

*Syllabus subject to changes