Syllabus

Technology Forecasting

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td colspan="2">전선(3/3)</td><td>Course code</td><td></td></tr>
<tr><td>Target students Division/major/grade</td><td colspan="2">/</td><td>Opening semester</td><td>2017년 2학기</td></tr>
<tr><td>Class time and classroom</td><td colspan="4">토1(팔735) 토2(팔735) 토3(팔735)(팔735)</td></tr>
<tr><td rowspan="3">Reference to this course</td><td>Related basic courses</td><td colspan="4"></td></tr>
<tr><td>Recommended concurrent courses</td><td colspan="4"></td></tr>
<tr><td>Related advanced courses</td><td colspan="4"></td></tr>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td>Office phone Number</td><td>2419</td><td>e-mail</td><td>sungjoo@ajou.ac.kr</td></tr>
<tr><td>Office hours</td><td>Homepage address</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
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1. Introduction

Technology forecsting is forecasting the future characteristics of useful technological machines, procedures or techniques. Commonly adopted methods of technology forecasting include the Delphi method, forecast by analogy, growth curves and extrapolation. Normative methods of technology forecasting ? like the relevance trees, morphological models, and technlogy roadmaps ? are also commonly used. This course will focus on these forecasting techniques together with their applications

2. Course Objectives

3. Class types and activities

4. Teaching Method

1. 강의: 기술예측 방법론에 대한 설명

(1) 탐험적 예측 (Exploratory forecasting)
 - Delphi
 - Futures Wheel
 - Trend impact
 - Cross impact
 - Statistical modeling
 - Demand forecasting model

(2) 규범적 예측 (Normative forecasting)
 - Relevance tree and morphology analysis
 - Technology roadmap

(3) 기타
 - Scenario planning
 - Simulation
 - Agent model
 - Text-mining
 - Foresight evaluation

2. 토론 및 실습: 각 방법론의 장단점에 대한 토론 및 방법론의 실제 적용 (조별 토론 및 실습)

3. 사례발표: 각 방법론의 적용 사례에 대한 발표 (조별 발표)

5. Knowledge and ability required for taking this course

6. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam			
final exam			
quiz		20	
presentation		30	중간고사 대체
discussion			

6. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
homework		40	기말고사 대체
etc			

1. 중간고사 30%
2. 기말고사 40%
3. 과제 30%

7. Textbooks

Main/Sub	Title	Writer	Publisher	Publication year
주교재	Futures Research Methodology (e-class 등록 자료)	Glenn	AC/UNU Millennium Project	

8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	강의소개 및 기술예측 소개	강의소개	
2	Delphi	강의, 발표, 실습	
3	Futures Wheel	강의, 발표	
4	Trend impact	강의, 발표	
5	Cross impact	강의, 발표	
6	Statistical modeling	강의, 발표, 실습	
7	Demand forecasting model	강의, 발표	
8	중간고사	중간지필평가	
9	Relevance tree and morphology analysis	강의, 발표	
10	Technology roadmap	강의, 발표, 실습	
11	Scenario planning	강의, 발표	
12	Simulation	강의, 발표	
13	Agent model	강의, 발표	

8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
14	Text-mining	강의, 발표	
15	Foresight evaluation	강의	
16	기말고사	기말지필평가	

9. Others

없음