Travel Demand Forecasting

Course Name	Course type (credit/hours)	Required course(3/3)	Course code	E052
	Target students Division/major/grade	Transportation System Engineering/Junior	Opening semester	2018 1ST SEMESTER
	Class time and classroom	Tue B(Pal211)Thu A(Pal211)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	교통체계분석 및 계획		
	Related basic courses			
	Recommended concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	Keechoo Choi(Professor, Transportation System Engineering)				
	Office Room Number	팔달관 515호	Office phone Number	2538	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number	팔달관 413호	Office phone Number	2541	e-mail	

1. Introduction

2. Course Objectives

-understand the nature of TDF
-understand the models at each step
-perform TDF process with actual data

3. Class types and activities

4. Teaching Method

- [V] lecture
- [V] discussion and debate
- [ ] team project(presentation and case studies)
- [ ] experiments(role-playing,etc)
- [ ] designing and production
- [ ] on-site learning(on-site training)
- [ ] others

5. Support Systems in Use

- [V] AjouBb
- [ ] automatic recording system
- [V] web-based assignment
- [ ] cyber lecture
- [ ] online content
- [ ] class behavior analyazing system
- [ ] others

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] UR(Undergraduate Research)
- [ ] FL(Flipped Learning)
- [ ] DSAL(Data Science Active Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Some transportation system analysis and planning knowledge would be required together with computer application capabilities.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam	1회	35	
final exam	1회	35	
quiz	2회	10	
presentation			
discussion			
homework	4회	10	
etc			
study hours	4		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Sub	NCHRP Report 365_Travel Estimation Techniques for Urban Planning	William A. Martin and NancyA. McGuckin	TRB, National Academ	1998
Main	Transportation Engineering and Planning (3rd Edition)	C.S. Papacostas and P.D. Prevedouros	Prentice Hall	2003
Sub	교통 수요 분석: 이론과 모형	윤대식	박영사	2001

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction The Concept of Travel Demand Forecast Transportation Economics		Keechoo Choi			

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Trip Generation(Growth Factor, Cross-classification)		Keechoo Choi			
3	Trip Generation(Regression Model)		Keechoo Choi			
4	Trip Distribution and GF		Keechoo Choi			
5	Fratar Model, Gravity Model 1		Keechoo Choi			
6	Gravity Model 2		Keechoo Choi			
7	Modal Split Preliminaries		Keechoo Choi			
8	Midterm Exam		Keechoo Choi			
9	Modal Split(Logit Model 1)		Keechoo Choi			
10	Modal Split(Logit Model 2)		Keechoo Choi			
11	Traffic Assignment 1		Keechoo Choi			
12	Traffic Assignment 2		Keechoo Choi			
13	Traffic Assignment 3		Keechoo Choi			
14	Criticism about 4 step process		Keechoo Choi			
15	Review		Keechoo Choi			
16	Final Exam		Keechoo Choi			

11. Other items of notification