

# e-Commerce & Data-Driven Marketing

(전자상거래와 데이터주도마케팅)  
Fall 2017

## 1. General Information

• **Instructor:** Prof. Cho, Dai Yon

## 2. Course Synopsis:

본 강의는 인공지능, 빅데이터와 데이터 어널리틱스, 마케팅 어널리틱스 등의 기법이 기업에 도입되어 활용되고 있는 추세를 고려하여 이러한 데이터 주도형 의사결정에 사용되는 기법들에 대한 이해를 위하여 디자인 되었습니다.

본 강의에서 다루게 될 내용은

1. Excel 의 Pivot table 과 advanced Excel function 들을 이용하여 marketing analytics 를 구현하는 프로젝트를 포함합니다.
2. IBM Watson 의 AI 엔진을 활용한 다양한 solution 들을 open API 를 통하여 접해보고 이를 기업 의사결정에 활용하는 사례를 조사하며, 프로젝트를 통하여 Node-Red 등으로 실제로 구현하는 내용을 포함합니다.
3. Python 프로그램을 활용하여 deep learning 프로젝트를 통해 data analytics 를 구현하는 내용을 포함합니다.

## 3. Text:

Wayne L. Winston, Marketing Analytics: Data-Driven Techniques with Microsoft Excel, John Wiley & Sons, 2014

## 4. Evaluation:

Midterm Project (30%), Final Project (45%), Quiz (20%), Team Contribution (extra 5%)

\* Subject to change depending on the situation without notice

A+: 95/100 or Above, A: 90 or Above, B+: 85 or Above, B: 80 or Above, C+: 75 or Above, C: 70 or Above, D+: 65 or Above, D: 60 or Above, F: Below 60.

## 5. Attendance Policy

Attendance is a very significant part of the final grade. An absence for any reasons (illness, physical screening for military conscription, etc.) will NOT be considered a presence. Three incidences of tardiness and early leave will be considered an absence. An absence from the

third and on will cost 1 % point off the final points. Failure to attend 3/4 or more of all the class sessions will result in an automatic F. NO EXCEPTIONS!

Class Schedule

week	contents
1	Introduction Pivot table Introduction
2	Pivot table Sales summary Weekly effect Seasonal effect Trends of sales Promotion effects Slicing and dicing Marketing data Summarize
3	Pivot table Seasonal effect Trends of sales Promotion effects Slicing and dicing Marketing data Summarize
4	Regression & sales forecasting Error term Dummy variable Regression Nonlinearity Interaction Heteroscedacity Autocorrelation Multicollinearity
5	Market segmentation Cluster analysis
6	Logistic regression Linear regression and validation Logistic regression Logit function
7	Market basket analysis Lift Two-way lift Three-way lift Store display
8	Conjoint analysis

9	Collaborative filtering
10	IBM Watson Introduction
11	IBM Blue Mix, Node-Red, JASON, Node.js 등의 Computing environment 구축
12	Neural network introduction
13	Neural network Backpropagation algorithm introduction & implementation
14	Tensorflow basic 1
15	Tensorflow basic 2
16	Tensorflow basic 3