Course Information-Introduction to Data Science

- Subject Outline
- Test Information

summary

With the advent of the age of knowledge and information, the role of data scientists who can grasp the value of data and use it correctly is very important.In this course, students will explore the concepts of data and data science, and learn the basic skills that a data analyst should have.The objective of this course is to cultivate the basic ability to become a data scientist who wants society by conceptually arranging how to understand and analyze data and learning through examples.

Medium name

- Multimedia lesson

Service schedule

- Additional updates every Monday during the semester.

lecture content

- Multimedia lesson

Count	Lecture Topic	The details	Textbook Pages	Professor in charge
1	Data and Data Mining	1.1 Data.	1-16	
2	Big Data and Data Science	1.2 Data science, data scientists.	16-30	
3	A convenient world created by data scientists	2.1 Introduction.2.2 Convenient Society.	31-43	
4	A safe and secure society created by data scientists	2.3 A healthy society.2.4 Safe Society.	44-60	

Count	Lecture Topic	The details	Textbook Pages	Professor in charge
5	Data structure and storage	3.1 Structure of the Data.	61-69	Youngjae Jang
6	Database	3.2 Storage of Data.	70-92	Youngjae Jang
7	Data quality management	4.1 Data Quality Management.	93-106	Youngjae Jang
8	Data analysis	4.2 Data Analysis.	107-122	Youngjae Jang
9	Data Driven Decision Making	5.1 Data Driven Decision Making.	123-139	Youngjae Jang
10	Data and Presentations	5.2 Data and Presentations.	140-154	Youngjae Jang
11	Data Visualization I	6.1 Data Visualization	155-162	Youngjae Jang
12	Data Visualization II	6.2 Implement Data Visualization.6.3 Successful data visualization.	163-206	Youngjae Jang
13	Data Mining I	7.1 The role of data mining in data science.7.2 The concept of data mining.7.3 Areas of Data Mining.	207-218	Youngjae Jang
14	Data Mining II	7.4 Data Mining Techniques and Tools.7.5 Data Mining Application Examples.	219-248	Youngjae Jang
15	Role and prospect of data scientist	8.1 Required Capabilities of Data Scientists.8.2 Ethics of Data Scientists. 8.3 Prospects of Data Science and Data Scientists.	249-265	Youngjae Jang

- Attendance class

division	Lecture Topic	The details	Textbook Pages	Lecture
1	Data and data science	Book 1.1	1-10	lecture
2	Data scientist	Book 1.2	17-25	lecture

division	Lecture Topic	The details	Textbook Pages	Lecture
3	Convenient society created by data scientists	Textbooks 2.1 ~ 2.2	31-39	lecture
4	A healthy society / safe society created by data scientists	Textbooks 2.3 to 2.4	44-55	lecture
5	Data structure and storage	Textbooks 3.1 ~ 3.2	61-83	lecture
6	Data quality management	Book 4.1	93-103	lecture

Evaluation method and question range

Evaluation Type	Assessment Methods	Scope of question	Remarks
Attendance class	Short answer	No test on attendance class.	

Note: The above information is subject to change, so please refer to the academic bulletin.

references

- Signature: Doing data science / Author: by Cathy O`Neil, Rachel Schutt / Publisher: O`Reilly / Year of publication: 2014
  Signature: Expert guide of data analysis = The guide for advanced data analytics professional / Author: [Korea Database Agency] / Publisher: Korea Database Agency / Publication Year: 2014
  Signature: Data Mining / Author: Koo Ja Yong;/ Publisher: Korea National Open University Press / Year of Publication: 2011