

## COURSE DETAIL

### INTRODUCTION TO BIG DATA ANALYTICS FOR MANAGEMENT

**Country**

Korea, South

**Host Institution**

Seoul National University

**Program(s)**

Seoul National University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Business Administration

**UCEAP Course Number**

102

**UCEAP Course Suffix****UCEAP Official Title**

INTRODUCTION TO BIG DATA ANALYTICS FOR MANAGEMENT

**UCEAP Transcript Title**

BIG DATA FOR MGMNT

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course covers programming using data programming language on an introductory yet rigorous basis for highly motivated students with little or no prior experience in programming. The course focuses on collecting and analyzing data, as well as the grammar of the data programming language and provides an in-depth look at big data analysis.

Modern scientific, engineering, and business applications are increasingly dependent on data, yet traditional data analysis technologies were not designed for the complexity of big data. Big data analysis has emerged as a new, exciting, and fast-paced discipline that explores novel statistical and implementation challenges that emerge in collecting, processing, storing, and extracting knowledge from big data.

Students learn how to collect, process, and analyze large amounts of data by combining data analysis technology and artificial intelligence technology. Students will use Python as a powerful tool for data management and analysis and analyze structured and unstructured data using LLMs for natural language processing, text analysis, and graph-based multi-agent systems. In addition, data management and system design techniques using RAG (Retrieval-Augmented Page 1 of 9 Generation) and APIs that support prompt engineering techniques and AI-based decision-making will also be covered.

This is a useful course for students who want to combine and utilize data analysis and artificial intelligence technology in various fields such as information technology (IT), business analytics, marketing, and strategic planning.

Prerequisites: Basic knowledge of the system configuration of the operating system (Windows, macOS, etc.) (e.g., setting environment variables, etc.).

Basic knowledge of the Python programming language

## Language(s) of Instruction

English

## Host Institution Course Number

M1338.001500

**Host Institution Course Title**

INTRODUCTION TO BIG DATA ANALYTICS FOR MANAGEMENT

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

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