

COURSE DETAIL

ADVANCED MANAGEMENT SCIENCE

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

172

UCEAP Course Suffix**UCEAP Official Title**

ADVANCED MANAGEMENT SCIENCE

UCEAP Transcript Title

ADV MANAGEMENT SCI

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course focuses on learning how to structure and solve complex decision problems and analyzing their property and solutions quantitatively. It covers advanced theories, algorithms, and applications of management science in the context of quantitative decision modeling and optimization. Topics include the theory and applications of linear, nonlinear, integer programming, as well as advanced modeling approaches to optimization problems under various sources of uncertainty. Students will also explore recent advances in the field, including integration with machine learning, and address real-world decision challenges across various domains, ranging from finance, marketing, and production to healthcare, sports management, and humanitarian operations. The course involves hands-on learning using relevant languages (e.g., Excel, Python) and state-of-the-art solvers. A basic understanding of mathematical optimization and probability is required.

Language(s) of Instruction

English

Host Institution Course Number

251.652

Host Institution Course Title

ADVANCED MANAGEMENT SCIENCE

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

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