

# COURSE DETAIL

## DYNAMIC PROGRAMMING

**Country**

Taiwan

**Host Institution**

National Taiwan University

**Program(s)**

National Taiwan University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Engineering

**UCEAP Course Number**

103

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

DYNAMIC PROGRAMMING

**UCEAP Transcript Title**

DYNAMIC PROGRAMMING

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course emphasizes the use of stochastic dynamic optimization methods in theory and practice. General knowledge of probability theory and stochastic processes is assumed. Applications considered include revenue management, queueing systems and supply chain systems. The topics discussed also have wide applications to financial, economic, and engineering systems.

Required Prerequisites: A background in college level mathematical analysis, probability theory, and stochastic processes is required. In addition, homework and term projects will include developing computer codes for algorithms presented in class. These computer codes could be applied to solve stochastic dynamic decision problems in practice.

### Language(s) of Instruction

English

### Host Institution Course Number

IE5038

### Host Institution Course Title

DYNAMIC PROGRAMMING

### Host Institution Course Details

[https://nol.ntu.edu.tw/nol/coursesearch/print\\_table.php?course\\_id=546%20U6080&c...](https://nol.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=546%20U6080&c...)

### Host Institution Campus

### Host Institution Faculty

Engineering

### Host Institution Degree

### Host Institution Department

### Course Last Reviewed

2023-2024

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