# **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 Campus**

Host Institution Faculty Engineering

#### **Host Institution Degree**

### **Host Institution Department**

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