

# COURSE DETAIL

## COMBINATORICS AND GRAPHS

**Country**

Singapore

**Host Institution**

National University of Singapore

**Program(s)**

National University of Singapore

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

110

**UCEAP Course Suffix**

A

**UCEAP Official Title**

COMBINATORICS AND GRAPHS

**UCEAP Transcript Title**

COMBINATORICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

### **Course Description**

This course introduces fundamental principles and techniques in combinatorics as well as the basics of graph theory, which have practical applications in such areas as computer science and operations research. The major topics from combinatorics are: Permutations and Combinations, Binomial and Multinomial Coefficients, Principle of Inclusion and Exclusion, Generating Functions, Recurrence Relations. The major topics from graph theory are: Basic Concepts and Results, Bipartite graphs and trees.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

MA2214

### **Host Institution Course Title**

COMBINATORICS AND GRAPHS I

### **Host Institution Course Details**

### **Host Institution Campus**

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Mathematics

### **Course Last Reviewed**

2022-2023

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