

# COURSE DETAIL

## INTRODUCTION TO MATHEMATICAL MODELS

**Country**

China

**Host Institution**

Fudan University

**Program(s)**

Fudan University

**UCEAP Course Level**

Lower Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

12

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

INTRODUCTION TO MATHEMATICAL MODELS

**UCEAP Transcript Title**

INTRO MATH MODELS

**UCEAP Quarter Units**

3.00

**UCEAP Semester Units**

2.00

## Course Description

Introduce the concept, main types and basic methods of mathematical models through cases, so that students can master the thought and method of mathematical modeling initially. This course is also a basic course for students to participate in the mathematical contest in modeling.

Using cases as clues, this course introduces the basic principles and methods of building mathematical models, covering the fields of energy, communication, economy, ecology, aviation and aerospace. The main mathematical methods include elementary mathematics, elementary geometry, calculus, linear algebra, operations research, elementary number theory, graph theory, differential equations, etc.

## Language(s) of Instruction

Chinese

## Host Institution Course Number

MATH110002

## Host Institution Course Title

INTRODUCTION TO MATHEMATICAL MODELS

## Host Institution Campus

## Host Institution Faculty

Zhijie CAI

## Host Institution Degree

## Host Institution Department

School of Mathematical Science

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