

## COURSE DETAIL

### MATHEMATICAL ANALYSIS I

**Country**

Japan

**Host Institution**

Hitotsubashi University

**Program(s)**

Hitotsubashi University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

110

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

MATHEMATICAL ANALYSIS I

**UCEAP Transcript Title**

MATH ANALYSIS

**UCEAP Quarter Units**

3.00

**UCEAP Semester Units**

2.00

## Course Description

Recently, deep learning has been the successful tool for various tasks of data analysis. Also, the theoretical structure of deep neural network (DNN) has been clarified gradually. On the other hand, such theoretical structure is crucially based on elementary linear algebra. Thus it is worth studying machine learning from scratch, that is, elementary linear algebra. Upon completion of the course, students will be able to understand topics on machine learning including elementary deep neural network and reservoir computing.

### Language(s) of Instruction

Japanese

### Host Institution Course Number

EU-E-402-00

### Host Institution Course Title

MATHEMATICAL ANALYSIS I

### Host Institution Course Details

[https://syllabus.cels.hit-u.ac.jp/hit\\_syllabus/2023/03/03\\_1EE40201\\_en\\_US.html](https://syllabus.cels.hit-u.ac.jp/hit_syllabus/2023/03/03_1EE40201_en_US.html)

### Host Institution Campus

Hitotsubashi University

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Economics

### Course Last Reviewed

2022-2023

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