

## COURSE DETAIL

### INSTRUMENTATION

**Country**

China

**Host Institution**

Fudan University

**Program(s)**

Fudan University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Environmental Studies

**UCEAP Course Number**

171

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

INSTRUMENTATION

**UCEAP Transcript Title**

INSTRUMENTATION

**UCEAP Quarter Units**

3.00

**UCEAP Semester Units**

2.00

## Course Description

### Course Objective

1. Have a basic understanding of quantitative instrumental analysis that involves electromagnetic radiation, spectroscopy, mass spectrometry, electrochemistry, and chromatography.
2. Be familiar with modern methods for the analyses of chemical substances in a variety of matrices, and the interpretation of data obtained from such analyses.
3. Be able to do calculations associated with the quantitative instrumental analyses.
4. Be able to draw conclusions based on analyses and calculations.

Instrumentation course will introduce the basis of electromagnetic radiation, Mass Spectra as well as chromatography. Students in this course will understand the theories, methodology, and structure of the related instruments.

This course will use “Principles of Instrumental Analysis” as the major reference book, combined with knowledge of up to date modern instruments (from department lab as well as the newest literature). Student will have the elemental capability to solve practical problems by using various instruments.

### Language(s) of Instruction

English

### Host Institution Course Number

ENVI130071

### Host Institution Course Title

INSTRUMENTATION

### Host Institution Course Details

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

Environmental Science and Engineering

**Course Last Reviewed**

2023-2024

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