

# COURSE DETAIL

## ROBOTICS

**Country**

Japan

**Host Institution**

Tohoku University

**Program(s)**

Engineering and Science

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Engineering

**UCEAP Course Number**

101

**UCEAP Course Suffix**

AV

**UCEAP Official Title**

ROBOTICS

**UCEAP Transcript Title**

ROBOTICS

**UCEAP Quarter Units**

3.00

**UCEAP Semester Units**

2.00

### **Course Description**

A robot is an intelligent mechanical system with multiple degrees of freedom. This course investigates the fundamentals of modeling and control of a robot manipulator. The course covers spatial descriptions and transformations; manipulator kinematics, and manipulator dynamics.

Required Course Prerequisites: Linear Algebra and Control Engineering I.

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

English

### **Host Institution Course Number**

N/A

### **Host Institution Course Title**

ROBOTICS I

### **Host Institution Course Details**

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### **Host Institution Campus**

Tohoku University

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Engineering

### **Course Last Reviewed**

2025-2026

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