# COURSE DETAIL

| RESERVOIR ENGINEERING |
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| **Country**<br>Japan |
| **Host Institution**<br>Tohoku University |
| **Program(s)**<br>Engineering and Science |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Mechanical Engineering |
| **UCEAP Course Number**<br>111 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>RESERVOIR ENGINEERING |
| **UCEAP Transcript Title**<br>RESERVOIR ENGR |
| **UCEAP Quarter Units**<br>3.00 |
| **UCEAP Semester Units**<br>2.00 |

**Course Description**

This lecture intends to understand the basic equations of fluid flow in porous media as reservoirs, and to master the fundamentals about reservoir engineering for analyzing quantitatively mass and heat transport phenomena in underground structures containing fracturing and multiphase flow.
Numerical analysis can provide fundamental information on the production of oil and gas, the extraction of geothermal energy, and the problems of soil contamination and carbon sequestration. A lot of practical examples on the topics are explained in this class.

It is recommended to master fluid dynamics in advance, but this is not compulsory so that we explain easily to master the phenomena.

**Language(s) of Instruction**
Japanese

**Host Institution Course Number**
N/A

**Host Institution Course Title**
RESERVOIR ENGINEERING

**Host Institution Campus**
Tohoku University

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Engineering

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