# **COURSE DETAIL**

#### THERMODYNAMICS AND DYNAMICS OF THE ATMOSPHERE

# **Country**

Germany

#### **Host Institution**

Free University of Berlin

### Program(s)

Free University Berlin

#### **UCEAP Course Level**

**Upper Division** 

### **UCEAP Subject Area(s)**

Earth & Space Sciences

#### **UCEAP Course Number**

101

#### **UCEAP Course Suffix**

#### **UCEAP Official Title**

THERMODYNAMICS AND DYNAMICS OF THE ATMOSPHERE

### **UCEAP Transcript Title**

THERMODNYMC ATMOSPH

### **UCEAP Quarter Units**

8.50

#### **UCEAP Semester Units**

5.70

### **Course Description**

This course introduces students to the general thermodynamics and dynamics of the atmosphere. It covers the following topics: thermodynamics of the atmosphere; static alterations of the atmospheric air; statics of the atmosphere; condensation and latent heat; basics of kinematics; derivation of prognostic fundamental equations of meteorology from classical thermodynamics and hydrodynamics; scales in meteorology; Lagrange and Eulers representation; natural coordinates; fundamental equilibriums (geostrophic wind, cyclostrophic wind, gradient wind); thermal wind.

# Language(s) of Instruction

German

### **Host Institution Course Number**

24805

#### **Host Institution Course Title**

DYNAMIK DER ATMOSPHÄRE 1

### **Host Institution Campus**

**GEOWISSENSCHAFTEN** 

### **Host Institution Faculty**

**Host Institution Degree** 

## **Host Institution Department**

Meteorologie

**Print**