# **COURSE DETAIL**

# LOGIC II **Country** Germany **Host Institution** Technical University Berlin Program(s) Technical University Berlin **UCEAP Course Level Upper Division UCEAP Subject Area(s)** Philosophy **UCEAP Course Number** 107 **UCEAP Course Suffix UCEAP Official Title** LOGIC II **UCEAP Transcript Title** LOGIC II **UCEAP Quarter Units** 4.50 **UCEAP Semester Units** 3.00

### **Course Description**

In this course we will explore a wide range of alternative logical systems for modelling different phenomena. We will look at the semantics and proof theory for modal logics (the logic of possibility and necessity), intuitionistic logic (the logic of constructive mathematics), "gappy" logics (where some truth values are underdetermined), the logic of paradox (where paradoxes can be true without the logic being trivial), deontic logic (the logic of actions and obligations), and dynamic epistemic logic (logics for tracking our knowledge in a changing epistemic environment). For each we will look at the philosophical motivations and payoffs that the logic has, as well as strengths and weaknesses of the formalisation.

## Language(s) of Instruction

English

#### **Host Institution Course Number**

3130 L 018

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

LOGIC II

#### **Host Institution Campus**

Technische Universität Berlin

## **Host Institution Faculty**

# **Host Institution Degree**

# **Host Institution Department**

Institut für Softwaretechnik und Theoretische Informatik

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