# **COURSE DETAIL**

### **ADVANCED ALGORITHMS AND DATA STRUCTURES**

## **Country**

Denmark

### **Host Institution**

University of Copenhagen

## Program(s)

University of Copenhagen

### **UCEAP Course Level**

**Upper Division** 

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

Mathematics Computer Science

### **UCEAP Course Number**

166

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

ADVANCED ALGORITHMS AND DATA STRUCTURES

# **UCEAP Transcript Title**

ALGORITHMS&DATA

## **UCEAP Quarter Units**

6.00

### **UCEAP Semester Units**

4.00

## **Course Description**

This course covers the following topics: graph algorithms such as max flow; data structures such as van Emde Boas Trees; NP-completeness; exponential and parameterized algorithms for NP-hard problems; approximation algorithms; randomized algorithms; computational geometry; linear programming and optimization.

## Language(s) of Instruction

English

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

NDAA09023U

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

ADVANCED ALGORITHMS AND DATA STRUCTURES

#### **Host Institution Course Details**

https://kurser.ku.dk/course/ndaa09023u/2025-2026

### **Host Institution Campus**

# **Host Institution Faculty**

Science

# **Host Institution Degree**

Master

# **Host Institution Department**

Computer Science

#### **Course Last Reviewed**

2025-2026

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