

# COURSE DETAIL

## ADVANCED NETWORK MANAGEMENT

**Country**

China

**Host Institution**

Tsinghua University

**Program(s)**

Tsinghua University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

127

**UCEAP Course Suffix****UCEAP Official Title**

ADVANCED NETWORK MANAGEMENT

**UCEAP Transcript Title**

ADV NETWORK MGMT

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## **Course Description**

This course is a graduate course and is primarily project-oriented. It aims to teach students how to build REAL systems that measure the REAL data from the networks and services, process the using Big Data techniques such as Machine Learning, and solve their REAL performance and security problems. Through case studies based on recent research papers in top network conferences, this course will cover the latest research progress in network management in these areas: measurement, anomaly detection, diagnosis, and mitigation. Along the way, we will also briefly review techniques that have broader applications more than just network management, such as time series analysis, association rule mining, and machine learning. This course focuses on how to improve the performance of Mobile Internet: Targeted Services: Web-based Services such as search engine, online shopping and social networking; Video Streaming Services. Targeted Networks: Enterprise WiFi Network, Residential WiFi & Broadband Networks, Cellular Networks, and Data Center Networks. Targeted Devices: Smart Phones.

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

English

## **Host Institution Course Number**

80240663

## **Host Institution Course Title**

ADVANCED NETWORK MANAGEMENT

## **Host Institution Course Details**

### **Host Institution Campus**

Tsinghua university

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Computer Science and Technology

**Course Last Reviewed**

2023-2024

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