COURSE DETAIL

DATABASE SYSTEMS
Country Japan
Host Institution International Christian University
Program(s) International Christian University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 125
UCEAP Course Suffix
UCEAP Official Title DATABASE SYSTEMS
UCEAP Transcript Title DATABASE SYSTEMS
UCEAP Quarter Units 2.50
UCEAP Semester Units 1.70

Course Description

Database systems are the most widely used software systems in any area of life related to mainly information technology, management, business as well as web applications and services. This course first introduces the fundamental concepts of databases and their design. Then, it introduces database operations like updating and searching in database systems, as well as the newest database types and systems.

The course covers the following topics:

- Introduction to databases and their types
- Introducing the modeling of data and introducing database management systems
- Introducing the relational model
- Understanding the basics in database design
- Learning the steps of normalization
- Advanced normalization
- Understanding relational algebra
- Introducing the Standard Query Language (SQL)
- Using SQL
- Advanced database operations: transactions, triggers etc.

- Using databases in Web applications or in Web services
- Object-oriented databases
- Introducing new database solutions and new systems for handling BigData
- Understanding the concepts and usage of several NOSQL type database systems
- NOSQL type Database systems
- How to use these database systems for storing, searching and analyzing BigData
- Programming with NOSQL databases to create new applications from web-services to data mining and handling BigData

Language(s) of Instruction
English

Host Institution Course Number
ISC313E

Host Institution Course Title
DATABASE SYSTEMS

Host Institution Course Details
https://campus.icu.ac.jp/public/ehandbook/PreviewSyllabus.aspx?regno=31215&year...

Host Institution Campus
International Christian University

Host Institution Faculty
Host Institution Degree
Host Institution Department Information Science
Course Last Reviewed 2023-2024

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