

Database (SQL)



SCHOOL

Polytech Graduate School of Engineering



CAMPUS

Belle-Beille



LEVEL

3rd year Bachelor's degree



OPEN TO EXCHANGE STUDENTS

Yes



SEMESTER

Spring (S2)

- > **Degree course:** Graduate School of Engineering - Automation and Computer Engineering
- > **Teaching unit:** UE 5.3 Génie informatique
- > **Course language:** English
- > **Duration (hours):** 28
- > **ECTS:** 2
- > **Teacher(s):** Mehdi Lhommeau

> Assessment:

- Continuous assessment
- Final exam

> Teaching methods:

- Lecture course 8 hours
- Tutorial course hours
- Practical work 20 hours
- Case study
- Project

COURSE DESCRIPTION

Database Design - This will include design philosophies such as E-R and Relational Algebra, along with studies of normal forms for databases

Query Languages - The main topic will be an in-depth study of SQL

Physical Implementation - This will cover the basics of how the information in a database is stored and accessed on various systems

OBJECTIVES

Introduces the fundamental concepts for design and development of database systems. Emphasizes relational data model and conceptual schema design using ER model, practical issues in commercial database systems, database design using functional dependencies, and other data models. Develops a working relational database for a realistic application.

PREREQUISITES

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SELECTIVE BIBLIOGRAPHY

- Judith Bowman, Sandra Emerson, and Marcy Darnovsky, *The Practical SQL Handbook: Using Structured Query Language*, Third Edition, Addison-Wesley, ISBN 0-201-44787-8, 1996. -
- C. J. Date, *An Introduction to Database Systems*, Volume 1, Sixth Edition, Addison-Wesley, 1994. -