GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2025-2026

Database Management (E765026)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time 90 h**

Course offerings and teaching methods in academic year 2026-2027

A (semester 1)	Dutch	Gent	lecture	
			seminar	0.0h

Lecturers in academic year 2026-2027

De Tré, Guy	TW07	lecturer-in-charge

Offered in the following programmes in 2026-2027	**crdts**	**offering**
Bachelor of Science in Engineering Technology(main subject Electronics and ICT Engineering Technology)	3	A

Teaching languages

Dutch

Keywords

Database systems, relational databases, SQL, OLTP

Position of the course

This course is intended as a basic course, which on the one hand provides the necessary theoretical foundations for understanding databases, and on the other hand is sufficiently focused on the practical use of databases, with main emphasis on the relational model.

Contents

1 Introduction: Databases, database models, and database systems
2 The relational database model
3 SQL: data definition and data manipulation language
4 Working with database systems: security, recovery after failure, concurrency control
5 Other database models

Initial competences

Being familiar with data structures and having basic programming skills.

Final competences

1 Have insight into the basic concepts of databases and database systems
2 Understand how relational database are built.
3 Be able to manipulate and query relational databases.
4 Understand how database systems work.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture

Study material

Type: Handbook

Name: Principles of databases, 3e edition
Indicative price: € 52
Optional: no
Language : Dutch
Author : Guy De Tré
ISBN : 978-9-04304-157-7
Number of Pages : 580
Available through Student Association : Yes
Usability and Lifetime within the Course Unit : intensive
Usability and Lifetime within the Study Programme : regularly
Usability and Lifetime after the Study Programme : occasionally

References

R. Elmasri, S.B. Navathe, Fundamentals of Database Systems, Seventh Edition,
Pearson Addison-Wesley, Boston USA, 2016 (ISBN: 9780133971330)
J. Celko, SQL for Smarties, Morgan Kaufmann, 2014 (ISBN: 978-0128007617)
S. Faroult, P. Robson, The Art of SQL, O'Reilly, 2006 (ISBN: 978-059600894-9)
A. Molinaro, SQL Cookbook, O'Reilly, 2009 (ISBN 978-059600976-2)

Course content-related study coaching

All exercise courses are supported by assistants.
Lecturer and assistants are available for additional explanation or individual support by appointment.

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment

Examination methods in case of periodic assessment during the second examination period

Written assessment

Examination methods in case of permanent assessment

Skills test

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

- Periodic evaluation:
  - Theory (closed book)
  - Excercises (open book)
- Permanent evaluation:
  - SQL database querying (1st examination period: 2 tests in PC class: 2nd exam period: 1 test in PC class)

Calculation of the examination mark

First and second exam period:
Periodic evaluation: 75%; permanent evaluation: 25%.
The end score is the weighted mean of the periodic and non-periodic evaluation.

Facilities for Working Students

This course uses the online practice platform Dodona for the SQL exercises.