Course Title:	**Database System Design**
Course Code:	**COMP508**
Descriptor Start Date:	**31/01/2025**
POINTS:	**15.00**
LEVEL:	**5**
PREREQUISITE/S:	**None**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

This paper provides an introduction to the logical and physical design processes underlying database management systems and to show how they are realised in specific systems. Topics include data models, structured query language, relational database design and implementation.

LEARNING OUTCOMES

1. Understand the fundamental concepts of relational databases
2. Understand the conceptual, logical, and physical design processes of relational databases
3. Design and implement a relational database
4. Define, manage and manipulate data from a relational database (SQL)
5. Understand the concepts of transaction management

CONTENT

- Fundamental database concepts
- Conceptual Database Design (e.g. Entity-relationship modelling)
- Relational data model
- Logical database design
- Functional dependencies and normalisation
- Physical Database Design
- SQL querying and manipulation of data
- Transaction Management

LEARNING & TEACHING STRATEGIES

Lectures: lecturers will introduce and emphasise key concepts for each topic listed in the syllabus. Lecture hours include time for self-directed learning using readings, videos, and formative quizzes.
Tutorials/laboratories: Students will work individually and in groups to analyse, generate solutions to problems and case studies, and discuss their solutions.
Learning Management System: Course work for this paper will be available on Canvas. This will include a discussion forum for Assignments, as well as lectures and labs. Students are also provided with reference readings via Course Resources as well as having access to self assessment quizzes to test their own knowledge.

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Coursework - Quizzes	20.00	2,3,4,5
Coursework - Mid-term Test	30.00	1,2,3,4
Assignment - Database Project	50.00	1,2,3,4,5

Grade Map **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

Overall requirement/s to pass the course:

To pass this course, students must attempt all summative assessments and achieve a minimum overall grade of C-.

LEARNING RESOURCES

A recommended reading list will be provided.

For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme: **AK3697, Bachelor of Computer and Information Sciences**

Related Programme/s: **AK2006**
AK3003
AK3698
AK3756
ICE1
INEXCH1
SABRD1