Course Outline 2017
INFOMGMT 292: DATA MANAGEMENT (15 POINTS)

Semester 1 (1173)

Course prescription

Businesses need to develop effective mechanisms for storing and retrieving information. Examines different ways of understanding, storing, and viewing business data using the latest information technology tools. Builds skills in problem analysis, data modelling, and database design.

Programme and course advice

Prerequisite: INFOSYS 110 or 120 or INFOMGMT 192 or COMPSCI 105 or 107
Restriction: INFOSYS 222

If you are taking a double major in Information Management and Information Systems and have encountered a restriction between INFOMGMT 292 and INFOSYS 222 please discuss this with the ISOM undergraduate advisor.

Goals of the course

This course aims to expose students to knowledge, tools, and methods necessary to effectively manage data in today's digital world by allowing students to:

- work with real data in various formats;
- use industry-relevant software;
- practise and develop problem solving techniques; and
- develop an appreciation of data as a valuable asset for any business in any industry.

Learning outcomes

By the end of this course it is expected that students will be able to:

1. recognise, read, comprehend, and manage structured data in various formats such as XML, DSV, and JSON;
2. recognise and work with common formats used to store and manage unstructured data;
3. write basic Structured Query Language (SQL) queries to create, retrieve, and manipulate data stored in relational databases;
4. model structured data;
5. design relational databases; and
6. add value to data.

Content outline

The general content outline for this course is:

Topic 1: Working with digital data

Topic 2: Manipulating data in databases

Topic 3: Modelling and designing databases

An hour-by-hour course schedule will be provided on Canvas.

Learning and teaching

The learning and teaching philosophy behind this course is that proficiency in practical skills is a reflection of sound understanding of the content.

Students are expected to participate in two 2-hour classes each week. Classes are structured so that students are guided through practical exercises to develop their data management skills. The class content is then reinforced by instant-feedback assignments, and practical tests.

In addition to the weekly classes, students are expected to spend approximately another six hours per week on activities related to this course. These activities include reading, revising, practicing, completing assignments, and preparing for assessments.

Teaching staff

Lecturer

Ron Tiong | OGGB Room 460 | r.tiong@auckland.ac.nz

Learning resources

This course will require students to use the following software/tools:

Excel 2016

Access 2016 (Windows only)

Notepad++ (Windows) or TextWrangler (MacOS) or equivalent

Google Chrome DevTools

SQL Server 2014 Management Studio (Windows only)

SQL Server 2014 LocalDb (Windows only)

Windows command prompt or MacOS Terminal (bash)

Students may be required to use other software which will be provided by the course.

All the learning resources used in this course are available for free to University of Auckland students. Links to resources will be provided in Canvas.

Assessment

For each topic there are multiple in-class exercises, one assignment, and one test.

Assignments (4 x various%)	25%
Tests (3 x various%)	75%
Total	100%

Pass requirement: Students are required to pass the tests to pass this course, i.e. their combined score for all tests is at least 37.5 out of 75.

Academic integrity: In attempting any assessment, students agree to adhere to all the principles and practices of academic honesty and integrity for the University of Auckland outlined here: https://www.auckland.ac.nz/en/about/learning-andteaching/policies-guidelines-and-procedures/academic-integrity-info-forstudents.html. The work that a student submits for marking must be the student's own work, reflecting his or her learning. A student's submitted work may be reviewed against electronic source material using computerised detection mechanisms. Any form of cheating, plagiarism, assistance in cheating, unfair collaboration, or other behaviour deemed to be academic misconduct will not be tolerated. Academic misconduct will be dealt with according to University's Student Academic Conduct Statute outlined here: https://cdn.auckland.ac.nz/assets/central /about/the-university/how-the-university-works/policy-and-administration/student-academic-conduct-statute.pdf.

The broad relationship between these assessments and the course learning outcomes is as follows:

Learning outcome	Assignments	Tests
1	✓	✓
2	✓	✓
3	✓	✓
4	✓	✓
5	✓	✓
6	✓	✓

Inclusive learning

Students are urged to privately discuss any impairment-related requirements with the course staff.

Student feedback

Student feedback is important to us and will be used to improve the course from semester to semester. This semester you may be asked to complete evaluations on the teaching of the course. Please note that you do not have to wait until these evaluations are conducted in order to provide feedback. If there is something that you think we could improve then please let the course staff know as soon as possible.

In the event of an unexpected disruption

We undertake to maintain the continuity and standard of teaching and learning in all your courses throughout the year. If there are unexpected disruptions, the University has contingency plans to ensure that access to your course continues and your assessment is fair, and not compromised. Some adjustments may need to be made in emergencies. In the event of a disruption, the University and your course coordinators will make every effort to provide you with up-to-date information via Canvas and the university website.