

Unit Plan

Unit Code: CSG1207

Unit title: Systems and Database Design

Study Mode: On-campus & Off-campus

Academic Period: Semester 1, 2015 (151)

Unit Coordinator:

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Consultation arrangements	Please use email as a first point of contact outside of class. Always send university-related emails from your ECU student email address, and be sure to include the unit code in the subject line of your email. I aim to respond to emails within 24 hours.

Table of Contents

Unit Coordinator:	1
Table of Contents	1
Introduction	2
Teaching and Learning Approaches	2
Learning Outcomes	2
Textbook	2
Unit Content and Study Schedule	2
Assessment Details	3
Additional Information	3
Email Protocol	3
Assignment Extensions	3
Referencing in Assignment Work	4
Academic Misconduct	4
Deferred Exams	4
Failing a Unit	4
Unit and Teaching Evaluation Instrument (UTEI)	4

Introduction

This unit introduces students to the concepts of relational databases, including database design via normalisation and entity-relationship modelling in order to solve problems. It explores the use of Structured Query Language (SQL) to create, populate and administer relational databases and to perform complex queries upon the data inside them.

Teaching and Learning Approaches

Lectures & practical workshops, research and group work.

Learning Outcomes

On completion of this unit, students should be able to:

1. Construct complex queries to retrieve data in a relational database using SQL.
2. Design relational databases using normalisation and entity-relationship modelling.
3. Distinguish between a logical and a physical database design.
4. Understand the fundamental concepts of relational databases and what distinguishes them from other data storage methods.
5. Use SQL to implement, populate and administer a database design in a relational database management system (RDBMS).

Textbook

There is no textbook for this unit.

Unit Content and Study Schedule

This table represents the unit's typical study schedule. Any deviations from this will be announced in Blackboard. Classes are only held in Make Up Week if necessary to remain on schedule. Classes are not held during the Mid Semester Break. See the [academic calendar](http://intranet.ecu.edu.au/student/dates-and-events/academic-calendar)¹ for details of teaching weeks.

Teaching Week	Module	Topic
1 (23/02)	1	Introduction; Relational Database and Normalisation
2 (02/03)	2	Normalisation Process
3 (09/03)	3	Basic Entity-Relationship Modelling
4 (16/03)	4	Advanced ER Modelling
5 (23/03)	5	Basic SQL Statements and SQL Server 2008
6 (30/03)	Make Up Week	
	Mid Semester Break	
7 (13/04)	6	Row Restriction; SQL Server Data Types
8 (20/04)	7	Data Definition Language (DDL) & Constraints
9 (27/04)	8	Data Manipulation & Transactions
10 (04/05)	9	Joins & Aggregate Functions
11 (11/05)	10	Subqueries, Views & Row-Level Functions
12 (18/05)	11	Correlated Subqueries & Indexes
13 (25/05)	12	DCL, Functions & Procedures, Backups & Server Management; Unit Revision

¹ <http://intranet.ecu.edu.au/student/dates-and-events/academic-calendar>

Assessment Details

Assessment	Due Date	Value
Assignment 1: Normalisation and E-R Modelling	6 April 2015, 9:00AM	20%
Assignment 2: Database design & implementation	Task 1: 27 April 2015, 9:00AM Task 2: 1 June 2015, 9:00AM	30%
End of Semester Examination	TBA	50%

Assignment briefs can be found on the Assessments page of the unit site in Blackboard.

Additional Information

Email Protocol

All emails to ECU staff must be sent from your student email account.

When using email to communicate with ECU staff, you should always make sure that your message contains the following:

1. **A subject that contains the unit code**, and clearly describes the nature of your query or request. Your lecturers receive many emails a day and may also teach more than one unit, so if your email does not contain the unit code it may not be possible to place your message in context. If the subject does not indicate the nature of the message, it may well remain unanswered.
2. Ensure that you **include previous messages in email replies**, and make sure that previous messages are included in an ongoing exchange. Your lecturer deals with many students. Having a copy of the previous exchanges included in your message will expedite a response. You should still make sure that the subject indicates what the email is about.
3. Address your lecturer appropriately by name.
4. State your question or request clearly and concisely.
5. Insert a signature at the end of your email that contains your full name and student number

Your lecturer/tutor will inform you if there are additional requirements for communicating by email.

In normal circumstance your lecturer/tutor will reply within 2 working days.

Assignment Extensions

Any student who wishes to defer the submission of an assignment must apply to the lecturer **before the due date** for an extension of the time within which to submit the assignment. The application must be in writing and **must set out the grounds on which deferral is sought**.

- Where the assignment is submitted not more than 5 working days late, the penalty shall, for each working day that it is late, be 5% of the maximum assessment available for the assignment; or
- Where the assignment is more than 5 working days late, a mark of zero shall be awarded.

Referencing in Assignment Work

All sources must be cited (in text citation) *and* listed (end reference list). For details about referencing and the required format, please refer to the [ECU Referencing Guide](#)².

Academic Misconduct

Edith Cowan University regards academic misconduct of any form as unacceptable. Academic misconduct, which includes but is not limited to, plagiarism; unauthorised collaboration; cheating in examinations; theft of other student's work; collusion; inadequate and incorrect referencing; will be dealt with in accordance with the ECU Rule 40 Academic Misconduct (including Plagiarism) Policy.

Ensure that you are familiar with the [Academic Misconduct Rules](#)³.

Deferred Exams

If you have [appropriate grounds](#)⁴ for being unable to attend an exam, you can apply for a deferred exam.

Failing a Unit

Failing a unit three times may result in you being excluded from the unit, the major to which the unit belongs, or even the course. Clarification and further assistance can be obtained by contacting the Student Information Office.

Unit and Teaching Evaluation Instrument (UTEI)

At the end of the semester, all students will be requested to complete the ECU UTEI online survey. This survey will ask questions concerning your level of satisfaction with the unit, your lecturer and your tutor. Your feedback is needed to help us to improve the quality of our courses. We endeavour to use the feedback we receive from the UTEI survey to improve the quality of the unit when it is next run. In fact, the unit as it is running this semester has been modified in several ways based on the feedback we have received previously from the UTEI. Participation and your feedback are anonymous and confidential.

² <http://www.ecu.edu.au/centres/library-services/workshops-and-training/referencing>

³ http://intranet.ecu.edu.au/__data/assets/pdf_file/0019/18811/academic_misconduct_rules_students070327.pdf

⁴ http://askus.ecu.edu.au/app/answers/detail/a_id/803/~on-what-grounds-can-i-apply-for-a-deferred-exam%3F