School of Computer Science and Software Engineering

Unit Outline

Databases (CITS2232)

6 points / Semester 1
Location: UWA (Crawley)

Handbook Description

This unit deals with data modelling through the theory and practice of database design, implementation and use. Several database models are addressed, with a strong focus on the relational model and its theoretical grounding in sets and relational algebra. The process of problem decomposition into entity-relations, the design of appropriate relational schemas, and their refinement through normalisation underlies this unit. Critical issues surrounding the design of query languages and their implementation are addressed, and information retrieval is practised using a specific query language. Students learn database connectivity through an application layer, by building systems in traditional programming languages, as well as in scripting languages embedded in Web servers.

Prerequisites: CITS1200 Java Programming or CITS1210 C Programming or CITS1220 Software Engineering or CITS1005 Computing for Engineers and Scientists

Corequisites:

Unit Aims

Students learn the principles and practices in the design and implementation of database systems; understand the principles of sustainable and re-usable design and development in the context of data management; gain an appreciation of the complexity of information, and its storage and retrieval; understand the principles of abstraction with respect to data modelling; have a strong grounding in query execution, and data retrieval via an application layer. Teamwork is addressed through practical experience and lifelong learning is promoted by considering aspects of databases in the broader applications of information technology and web-based systems.

Teaching Staff

Unit Co-ordinator: Dr Nick Spadaccini

Textbook
Contact Hours

56 (lectures: 26 hrs; labs: 24 hrs; tutorials: 6 hrs)

Assessment

The assessment comprises of written tutorial work, a mid-semester test, a group project and a final examination.

Unsatisfactory Progress

Any student who does not demonstrate satisfactory progress in this unit, as defined in the FECM Policy on Assessment Practices and Procedures, may be refused admission to the final examinations. The final deadline for notification of unsatisfactory progress is the last day of Week 10.

Penalties

The School of Computer Science and Software Engineering has adopted a policy on minimum penalties for late items of assessment. This is the default policy of all units unless indicated otherwise, in writing, by the specific unit coordinator.

This policy shall apply to all items of continuous assessment, whether submitted either physically or electronically. Immediately after the submission deadline for an item of continuous assessment, a penalty of 20 percent will be applied PER DAY or PART THEREOF. The minimum mark possible for late submission is zero. The percentage is based on the item’s total contribution to the unit’s assessment. For example, a project contributing 40% to the unit’s assessment will incur a penalty of 8 marks for each day late until it is submitted or a mark of zero results.

A more detailed description is given in this School’s Policy on Late Submission. The Faculty does have an appeals procedure, the details of which can found at the Policy for Appeals.

Plagiarism

Plagiarism is broadly defined to be when any portion of the work presented for assessment, can be attributed to another party. The student making the submission should acknowledge what aspects of the presented work is not directly derived by them. For the purposes of plagiarism it is irrelevant that you have been given permission by someone to copy their work and present it as your own.

You are directed to the School of Computer Science and Software Engineering Policy on Plagiarism and the Faculty of

**Academic Conduct Essentials (ACE)**

All students who have not previously been enrolled at UWA are required to complete a short compulsory online module called Academic Conduct Essentials (ACE) within the first 10 weeks of semester. ACE introduces students to essential knowledge regarding ethical scholarship, helps prepare them for the expectations of their university career and informs them of correct academic conduct.

The unit can be accessed via WebCT. The final unit quiz must be completed with a mark of 80% or greater. Students may attempt the quiz as many times as they wish to gain the required pass mark. Completion of the unit will be recorded as an Ungraded Pass (UP) on students’ academic records. Non-completion (NC) within the required timeframe will also be documented on formal academic records. More information on ACE is available at ace.uwa.edu.au

**Special Consideration**

Applications for consideration, deferral of tests or exams or extensions of time for assignments on medical, personal or other grounds must be lodged with the faculty office no later than three working days after the due date for the assessment in question. This rule will apply to all students, except in exceptional circumstances.

**Faculty Marks Adjustment Policy**

Final assessment is subject to the Faculty Scaling Policy.

**Supplementary Examinations**

Supplementary examinations will be awarded in accordance with Faculty Policy on supplementary assessment.

**Student Rights**

The University's charter of student rights is available at http://www.secretariat.uwa.edu.au/home/policies/charter

**Academic misconduct**

The University of Western Australia strongly supports teaching and learning that promotes academic literacy and ethical scholarship for all students. As part of this commitment, UWA has recently developed new guidelines relating to Academic Misconduct (including plagiarism). It is also developing a range of resources for students and staff to further strengthen academic literacy and ethical scholarship at UWA. Further details are available on the Teaching and Learning website.