FIT5093
Business intelligence applications

Unit Guide

Semester 2, 2012

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

Last updated: 13 Jul 2012
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FIT5093 Business intelligence applications - Semester 2, 2012

This unit is intended to provide students with a framework for understanding business intelligence reporting systems with particular focus on the evolutionary process of developing an OLAP-based business intelligence system.

Mode of Delivery

Caulfield (Evening)

Contact Hours

2 hrs lectures/wk, 2 hr laboratory/wk

Workload

Students are expected to spend a total of 12 hours per week during semester on this unit as follows:

- **Lecture**: 2 hours per week
- **Tutorial / Laboratory**: 2 hours per week
- **Lecture Preparation**: Approximately 2 hours before each lecture to read and understand the lecture readings.
- **Tutorial / Laboratory Preparation**: Approximately 1 hour before to read and understand the laboratory notes.
- **Other Tasks**: Up to 5 hours per week participating in online discussion forums, completing laboratory exercises, working on assignments, and regular preparation for the final examination.

Unit Relationships

Prohibitions

IMS5004

Prerequisites

One of FIT9003, BUS5071, IMS9003 or equivalent

Chief Examiner

Mr Peter O'Donnell

Campus Lecturer
Caulfield
Steve Remington

Tutors

Caulfield
Steve Remington
Felix Lizama
Sindy Madrid
Academic Overview

Outcomes

At the completion of this unit students will:

- understand the scope and application of OLAP technology and business intelligence systems;
- have knowledge of the major approaches to the development of business intelligence and reporting systems;
- be able to design simple multi-dimensional databases;
- be able to develop a simple business intelligence system using an OLAP tool;
- be able to develop a simple reporting system;
- be able to communicate and foster realistic expectations of the role of OLAP technology and business intelligence systems in management and decision support.

Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:
   a. engage in an internationalised world
   b. exhibit cross-cultural competence
   c. demonstrate ethical values

critical and creative scholars who:

   a. produce innovative solutions to problems
   b. apply research skills to a range of challenges
   c. communicate perceptively and effectively

Assessment Summary

Examination (3 hours): 50%; In-semester assessment: 50%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prototype Business Intelligence Application: Part 1 Design Specification Document</td>
<td>25%</td>
<td>The design specification document must be submitted for marking and feedback at the end of week 7. The revised version of the design specification (if the student wishes to resubmit it) is due at the end of week 12.</td>
</tr>
<tr>
<td>Prototype Business Intelligence Application: Part 2 Development and Implementation</td>
<td>25%</td>
<td>End of week 12.</td>
</tr>
<tr>
<td>Reflective Journal Posts</td>
<td>Bonus of a maximum of 3% added to overall assignment mark.</td>
<td>Your last blog entry can be made anytime before the exam.</td>
</tr>
<tr>
<td>Examination 1</td>
<td>50%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>
Teaching Approach

- **Lecture and tutorials or problem classes**
  This teaching and learning approach provides facilitated learning, practical exploration and peer learning.
  The lecture stream of the unit will present and critically analyze theories, case studies and industry trends. The lectures will use interactive web 2.0 technology to facilitate interaction.

- **Laboratory-based classes**
  This teaching approach is practical learning.
  The laboratory classes will provide an exposure to the major technologies used in business intelligence. They will provide students with the skills required to work on the practical assignments.

- **Problem-based learning**
  Students are encouraged to take responsibility for organising and directing their learning with support from their supervisors.
  Many of the concepts and theories in this area can't be understood without experience. The unit features a major practical assignment that provides students with a concrete realistic design and development activity that will help reinforce and clarify the material presented in the unit.

Feedback

**Our feedback to You**

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Solutions to tutes, labs and assignments

**Your feedback to Us**

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see:
http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

**Previous Student Evaluations of this unit**

The unit is well established. There are no major changes - other than updates of the content where appropriate - planned this year. Student (and staff) evaluations of the unit have in the past been very positive.
Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

Prescribed Text(s) and Readings

There is no prescribed text for this unit.

The details of prescribed readings for each week's lecture and/or laboratory will be provided in the unit web site.

Required Software and/or Hardware

The unit will make extensive use of a wide variety of OLAP and business intelligence software packages including Microsoft Excel, Crystal Reports and Crystal Dashboard Designer. The main tool that will be used is Microsoft SQL Server Analysis Services 2008 R2. This product is installed in the computer laboratories we will be using, and is available for loan under a license agreement from Microsoft - so that students can install a copy on their personal computer for use on assignment and tutorial work.

A useful link: http://infotech.monash.edu/itsupport/msdnaa.html
# Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Familiarise yourself with the Moodle-based unit web site and read the Week 1 lecture readings</td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>Introduction to the Unit and Introduction to BI Applications</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The Nature of BI Applications - Industry-Wide Surveys</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Multi-Dimensional Modelling (I)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Multi-Dimensional Modelling (II)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Business Performance Measurement (I)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Business Performance Measurement (II)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The Nature of BI Applications - Organisation Case Studies</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BI Application Technology</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Designing BI Application User Interfaces (I)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Designing BI Application User Interfaces (II)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Industry Guest Speaker, The future of BI Applications and Exam Overview</td>
<td>Prototype Business Intelligence Application: Part 2 - Developed and Implemented Application</td>
</tr>
<tr>
<td></td>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken in SWOT VAC</td>
</tr>
</tbody>
</table>

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.*
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at http://lib.monash.edu/tutorials/citing/

Assessment Tasks

Participation

• Assessment task 1

  Title: Prototype Business Intelligence Application: Part 1 Design Specification Document

  Description: This assessment task involves the creation of a documented design specification for a prototype business intelligence application. An application, based on this design specification, will be developed and implemented in Assessment Task 2.

  Students can use the feedback received on the design specification to improve the developed and implemented application.

  Students may choose to revise their design specification based on the feedback received and re-submit it for re-marking in week 12.

  The Moodle-based unit web site contains details of the submission requirements and the case study on which the prototype business intelligence application will be based.

  Weighting:
  25%

  Criteria for assessment:
  The main criteria used to assess this submission will include:

  1. The ability of the system to answer the business questions posed by the case study.
  2. Quality of the justification of design choices made.
  3. The professionalism, presentation and clarity of the specification.

  See the Moodle-based unit web site for details of the assessment criteria.

  Due date:
  The design specification document must be submitted for marking and feedback at the end of week 7. The revised version of the design specification (if the student wishes to resubmit it) is due at the end of week 12.
• **Assessment task 2**

**Title:**
Prototype Business Intelligence Application: Part 2 Development and Implementation

**Description:**
Assessment Task 2 involves the development and implementation of a working prototype business intelligence application. The application will be based on the design specification created in Assessment Task 1.

The Moodle-based unit web site contains details of the required submission and the case study the assignment work will be based on.

**Weighting:**
25%

**Criteria for assessment:**
The main criteria used to assess this submission will include:

1. The ability of the system to answer the business questions posed by the case study.  
2. The consistency of the system with the design specification (Assignment 2).  
3. The application of best-practice design principles to the display of data in the system’s views and reports.

See the Moodle-based unit web site for details of the assessment criteria.

**Due date:**
End of week 12.

• **Assessment task 3**

**Title:**
Reflective Journal Posts

**Description:**
Each student is invited to keep a reflective journal on the either the Moodle-based unit web site or the Faculty blog site http://blog.infotech.monash.edu.au or using a 3rd party site like the http://www.blogger.com system. This blog will provide students the opportunity to reflect on the learning that takes place throughout the unit. Each week you will be able to make a new posting to your blog. The blog entries should include a reflection on what has happened in terms of your progress on assignment and tutorial work, your management of the assignment project and its tasks, what lessons have been learned to date and what you (and the staff) could do differently.

To obtain the 3% bonus mark for this task you must complete a minimum of 10 weekly blog entries during the semester. Each blog post will be read and assessed by the chief examiner. To get the 3% bonus 6 of these posts should be assessed as "satisfactory".

The 3% bonus will be added to the assignment component of the mark available for the unit.

**Note:** The assignment component cannot exceed 50%. So, for example, a student who obtained 46/50 for their assignment work and who earns the bonus will get 49%. While a student who got 49/50 would get 50/50 - the maximum available - if they earned the bonus.

For more details, please refer to the Moodle-based unit web site.

**Weighting:**
Bonus of a maximum of 3% added to overall assignment mark.

Criteria for assessment:
For more details, please refer to the Moodle-based unit web site.

Due date:
Your last blog entry can be made anytime before the exam.

Examinations

- Examination 1

  Weighting:
  50%

  Length:
  3 hours

  Type (open/closed book):
  Closed book

  Electronic devices allowed in the exam:
  None

  Remarks:
  The exam will be scheduled by the central Monash exams branch during the normal examination period at the end of the semester.

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at http://www.infotech.monash.edu.au/resources/student/forms/. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.


Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.
Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at: http://policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Plagiarism (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html)
- Special Consideration (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html)
- Grading Scale (http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html)
- Discipline: Student Policy (http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html)
- Academic Calendar and Semesters (http://www.monash.edu.au/students/key-dates/);
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-learning.html)

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at www.monash.edu.au/students. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/

The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to http://www.lib.monash.edu.au or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.ac.za/.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: http://monash.edu/equity-diversity/disability/index.html;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway
Reading list

Extensive reading will be made available to students using the library’s digital scanning service and has been posted on the unit web site.

Useful texts include: