

# FIT5059 Advanced programming for database applications

## **Unit Guide**

Summer semester, 2013

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.

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# FIT5059 Advanced programming for database applications - Summer semester, 2013

This unit is designed for students who wish to extend their programming abilities in developing relatively large database applications. An integrated system of significant size will be developed using the current industry standard software. Topics covered include the principal aspects of database development and applications, advanced queries, customising forms and professional reporting, business graphics, importing and exporting data, internet applications, debugging and error-handling security and system documentation

#### **Contact Hours**

2 hrs lectures/wk, 2 hrs laboratory/wk

# Workload requirements

This unit is offered in summer which spans for 3 weeks.

Lectures: 2 hours per day (Mon-Thu)

Tutorials: 2 hours per day (Mon-Thu)

Students will be expected to spend a total of 8 hours per day during the summer course.

# **Unit Relationships**

#### **Prohibitions**

BUS5410, BUS4410

# **Prerequisites**

(<u>FIT9004</u> or <u>FIT9017</u>) and (<u>FIT9003</u> or <u>FIT9019</u>) Knowledge of relational database principles, including SQL.

### **Chief Examiner**

**Associate Professor David Taniar** 

# **Campus Lecturer**

#### Caulfield

Jessica Sin

FIT5059 Advanced programming for database applications - Summer semester, 2013

# **Tutors**

# Caulfield

Jessica Sin

# **Academic Overview**

# **Learning Outcomes**

At the completion of this unit students will be able to:

- create a database system for practical application utilising forms, reports and graphics;
- understand the principal aspects of setting up a complete database application system;
- write complex queries using database query language;
- experience group work in building a complex database application system;
- produce a database system of professional quality.

# **Unit Schedule**

Week	Activities	Assessment
0	Register for tutorials, and download/install the required software	No formal assessment or activities are undertaken in week 0
1	Week 1 (Day 1): Chapter 2 - SQL and Oracle Form Introduction	
2	Week 1 (Day 2): Chapter 3 - Data Block Forms (Basic)	
3	Week 1 (Day 3): Chapter 4 - Data Block Forms (Advanced)	
4	Week 1 (Day 4): Chapter 5 - PL/SQL Programming (Basic)	
5	Week 2 (Day 1): Chapter 5 - PL/SQL Programming (Advanced)	Class Test: Monday 2-Dec-2013 (2-4pm)
6	Week 2 (Day 2): Chapter 6 - Custom Form (Basic)	
7	Week 2 (Day 3): Chapter 7 - Custom Form (Multiple Form)	
8	Week 2 (Day 4): Chapter 8 - Custom Forms (Tab Canvas)	
9	Week 3 (Day 1): Chapter 9 - Custom Forms (Stacked Canvas) and Chapter 11 - Pictures	
10	Week 3 (Day 2): Chapter 10 - Menus	
11	Week 3 (Day 3): Advanced Programming	
12	Week 3 (Day 4): Revision	
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/ academic/education/assessment/ assessment-in-coursework-policy.html

<sup>\*</sup>Unit Schedule details will be maintained and communicated to you via your learning system.

# **Assessment Summary**

Examination (3 hours): 60%; In-semester assessment: 40%

Assessment Task	Value	Due Date
Class Test	10%	Monday 2-Dec-2013 (2-4pm)
Assignment	30%	TBA
Examination 1	60%	To be advised

# **Teaching Approach**

# Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.

# **Assessment Requirements**

# **Assessment Policy**

Faculty Policy - Unit Assessment Hurdles

(http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-huro

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at <a href="http://lib.monash.edu/tutorials/citing/">http://lib.monash.edu/tutorials/citing/</a>

#### **Assessment Tasks**

### **Participation**

#### Assessment task 1

Title:

Class Test

**Description:** 

The test will cover Data Block Forms and PL/SQL.

Weighting:

10%

#### **Criteria for assessment:**

- 1. Understanding of SQL and PL/SQL
- 2. Use of Data Block Forms

Due date:

Monday 2-Dec-2013 (2-4pm)

#### Assessment task 2

Title:

Assignment

**Description:** 

Oracle Form Builder

Weighting:

30%

#### **Criteria for assessment:**

- 1. Completeness of each sub-system
- 2. Correctness of each sub-system
- 3. Testing results
- 4. Technical requirements of the system specified in the assignment specification

#### Due date:

**TBA** 

#### **Examinations**

#### Examination 1

Weighting:

60%

Length:

3 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

Remarks:

Exam: Monday 16-Dec-2013

## Learning resources

# **Reading list**

Morrison, J. and Morrison, M. (2005). Guide to Oracle 10g, 5th Edition, Cengage Learning, ISBN: 0619216298

Oracle Form Development for Database Applications, by Taniar & Lim, Publisher: Rinton Press, USA, ISBN 1-58949-055-X

Monash Library Unit Reading List <a href="http://readinglists.lib.monash.edu/index.html">http://readinglists.lib.monash.edu/index.html</a>

# Feedback to you

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see <a href="http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html">http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html</a>

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

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

# **Extensions and penalties**

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

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process: <a href="http://www.monash.edu.au/exams/special-consideration.html">http://www.monash.edu.au/exams/special-consideration.html</a>

## **Returning assignments**

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

## **Assignment submission**

It is a University requirement

(http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-plate for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <a href="http://www.infotech.monash.edu.au/resources/student/forms/">http://www.infotech.monash.edu.au/resources/student/forms/</a>. 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). Please note that it is your responsibility to retain copies of your assessments.

#### Online submission

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

### **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.

#### You will need access to:

- Oracle Developer Suite (Form Builder)
- Oracle SQLPlus\*

These are freely available to download from the following web addresses:

- 1. Oracle Database 10g Release 2 (10.2.0.4.0) Enterprise/Standard Edition http://www.oracle.com/technetwork/database/10204-winx64-vista-win2k8-082253.html
- 2. Oracle Developer Suite 10g (10.1.2.0.2) http://www.oracle.com/technology/software/products/ids/index.html

#### 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:

www.policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Academic integrity;
   http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.l
- Assessment in Coursework Programs;
   <a href="http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment-in-coursework
- Special Consideration;
   <a href="http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.htm">http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.htm</a>
   Grading Scale;
- http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html

   Discipline: Student Policy;
- Discipline: Student Policy;
   <a href="http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html">http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html</a>
- Academic Calendar and Semesters; <a href="http://www.monash.edu.au/students/dates/">http://www.monash.edu.au/students/dates/</a>
- Orientation and Transition; <a href="http://intranet.monash.edu.au/infotech/resources/students/orientation/">http://intranet.monash.edu.au/infotech/resources/students/orientation/</a>
- Academic and Administrative Complaints and Grievances Policy;
   <a href="http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.le">http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.le</a>
- Code of Practice for Teaching and Learning;
   <a href="http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teached-">http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teached-</a>

# **Graduate Attributes Policy**

 $\underline{http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.html}{} \\$ 

### 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 <a href="http://www.monash.edu.au/students">http://www.monash.edu.au/students</a>. For Sunway see <a href="http://www.monash.edu.my/Student-services">http://www.monash.edu.my/Student-services</a>, and for South Africa see <a href="http://www.monash.ac.za/current/">http://www.monash.ac.za/current/</a>.

# **Monash University Library**

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

# **Disability Liaison Unit**

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

Website: http://www.monash.edu/equity-diversity/disability/index.htmlTelephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Commuity Services at 03 55146018 at SunwayEmail: dlu@monash.eduDrop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus

#### 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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

<u>www.monash.edu.au/about/monash-directions</u> and on student evaluations, see: <u>www.policy.monash.edu/policy-bank/academic/education/guality/student-evaluation-policy.html</u>

#### **Previous Student Evaluations of this Unit**

Student feedback has shown this unit is well structured and no changes have been required for this semester.

If you wish to view how previous students rated this unit, please go to <a href="https://emuapps.monash.edu.au/unitevaluations/index.jsp">https://emuapps.monash.edu.au/unitevaluations/index.jsp</a>