

School of Information Management

## **INFO 332 ADVANCED SYSTEMS ANALYSIS**

Trimester Two 2011

### **COURSE OUTLINE**

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#### **Names and Contact Details**

Course Coordinator and Lecturer : Nishanie Pereira  
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Office - RH419  
Office hours – Tuesday 15:30-16:30, Thursday 12:30-13:30

#### **Trimester Dates**

Teaching Period: Monday 11 July – Friday 14 October  
Study Period: Monday 17 October – Thursday 20 October

#### **Class Times and Room Numbers**

Lectures:  
Tuesdays : 14:40- 15:30 GBLT3  
Thursdays : 14:40- 15:30 GBLT3

Tutorials  
Students are expected to attend one workshop in each of weeks 2-12.  
Wednesday 9:30-10:20 RW415  
Thursday 9:30-10:20 RW401

Students are expected to use the Signups system to reserve a particular workshop session.  
Note that it is mandatory to attend at least 7 of the tutorials.

#### **Readings**

**Recommended text** : Dennis, Wixom and Tegarden. *Systems Analysis and Design with UML version 2.0 :An Object Oriented Approach, Third Edition*, Wiley (ISBN – 13- 978-0470074787). Available at the Victoria University Bookshop.

Other readings will be made available on Blackboard.

## Course Content

Wk	Topics covered	Readings & preparation
1	<ul style="list-style-type: none"> <li>a. Course details and arrangements</li> <li>b. Introduction to Object Oriented Systems Analysis</li> </ul>	Chapter 1 Questions 17-31
2	<ul style="list-style-type: none"> <li>a. Principles of Object Oriented analysis</li> <li>b. Requirements determination</li> </ul>	Bentley and Whitten(2007) Object oriented analysis and modelling using UML,Chapter 10, Available on Blackboard Question 2-10  Chapter 4 Questions A-M
3	<ul style="list-style-type: none"> <li>a. Role of a BA in an organization</li> <li>b. Introduction to UML modelling</li> </ul>	Available on Blackboard  Available on Blackboard
4	Functional Modelling <ul style="list-style-type: none"> <li>- Activity diagrams</li> <li>- Use case diagrams</li> </ul>	Chapter 5 Exercises – A- W
5	Structural Modelling <ul style="list-style-type: none"> <li>- Class Diagrams</li> </ul>	Chapter 6 Exercises – A-R
6	Behavioural Modelling <ul style="list-style-type: none"> <li>- Sequence diagrams</li> <li>- Communication Diagrams</li> </ul>	Chapter 7 Exercises A- M
7	Revision Mid Term test	Available on Blackboard
8	Component and deployment diagrams	Available on Blackboard
9	<ul style="list-style-type: none"> <li>a. Verifying and validating analysis models</li> <li>b. Beginning a BA career – from testing to BA</li> </ul>	Chapter 8 – Exercises A- J  Available on Blackboard
10	Moving from analysis to design	Chapter 8 – Exercises J-M
11	Software development –Agile, XP, RUP, Waterfall	Available on Blackboard
12	Revision and Final test	

## Course Learning Objectives

Objective	On completion of this course students should be able to	FCA Graduate Attributes	Major Attributes
1	Understand the concepts of software engineering and object-oriented development	1,2,5	2,3,5
2	Use UML, the language and its associated diagrams for basic software design	1,2,5	2,3,5
3	Model the process of systems analysis and design	1,2,5	1,2,3,5
4	Analyse and specify business and user needs and systems requirements	1,2,5	1,2,3,5
5	Understand the concept of system quality and implement quality assurance when designing software	1,2,3,4,5	1,2,3,5
6	Implement the concept of software project management	1,2,5	1,2,3
7	Contrast the iterative, component-based development model (such as Agile methods and RUP etc ) and a traditional waterfall approach	1,2,5	2,3,5,6
8	Design major types of UML diagrams using Visual Paradigm software such as use case, class, activity, state and deployment diagrams.	1,2,5	2,3,5

### FCA Graduate Attributes (FGA)

- 1: Critical and Creative Thinking: Our graduates will demonstrate application of critical and creative thinking skills to practical and theoretical problems
- 2: Communication: Our graduates will be effective communicators
- 3: Global and Multicultural Perspective: Our graduates will have a global and multicultural perspective
- 4: Leadership: Our graduates will recognise, support and display leadership
- 5: Major attributes: Our graduates will develop specific knowledge and skills in at least one business, economics or public policy discipline area

### INFO Major Attributes (IMA)

- 1: Understand and manage the interplay between people, technologies and organisations that underlies information systems
- 2: Demonstrates a sound understanding of IT and related organisational processes
- 3: Analyse, design, develop, test, implement and maintain information strategies, systems, processes and applications for organisations
- 4: Exploit opportunities created by technology innovations
- 5: Communicate the technical and managerial aspects of information systems
- 6: Understand, manage and control IT risks and security
- 7: Explain the impact of IT in either social, economic, legal or ethical issues in organisations and society

### Course Delivery

This course is delivered over 12 weeks. Each week consists of two lectures and a workshop. Students are expected to read the recommended text. Students also need to learn the software tool Visual Paradigm. This software has been installed in the SIM labs.

### Expected Workload

Each week in addition to the 3 hours required for attending lectures and tutorials students can expect to spend

3 hours reading the set text and lecture notes

2 hours preparing for the tutorials

2 hours practising Visual Paradigm software

In addition the students should expect to spend 4-5 hours revising for the midterm test and about 10- 12 hours preparing for the test at the end of the course.

### Materials and Equipment

Students may obtain a copy of Visual Paradigm software for their home machines.

Both tests, mid term and end term will be paper based and no computers or mobile devices will be allowed. Students may bring in one A4 sheet of paper hand -written on both sides for the **final** test.

### Assessment Requirements

Item	Weight	Description	Due
Workshop performance	<b>50%</b>	Preparing for, attending and participating in workshops. It is mandatory to attend at least 7 workshops. Please note that attending the less than minimum number will result in a grade no better than “C” for this component. Additional bonus marks will be awarded for those students who prepare, attend and participates in all <b>10 workshops*</b>	At the end of each workshop session week 2- 12.
Mid course test (1 hr)	<b>15%</b>	This test will cover all aspects of the course up to and including Week 6	Week 7 during lecture time
Final test (2 hr)	<b>35%</b>	This test will cover the entire course. It is ‘closed book’. It is mandatory to obtain at least a “40%”.	
<b>TOTAL</b>	<b>100%</b>		

\*Calculation of bonus mark = Average mark of 10 workshops [Total marks of 10 workshops/ 10]

## Workshop Marking Guide (Subject to change)

Task	Skill	Marks
1	Read and understand the designated activity (questions, exercises, mini cases)	0.5
2	Perform the designated activity , produce an output (printed)	1.5
3	Quality of solution (inventive design / unique perspective, comprehensiveness, ability to clarify details, solution addresses the problem )	2
4	Communication	1
Total		5

Quality Assurance Note : Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and audit purposes. The findings may be used to inform changes aimed at improving the quality of FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

### Examinations

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period.

The final test for this course will be held on the 12<sup>th</sup> week of the trimester.

### Penalties

There will be zero marks given for workshop submissions if they are not submitted at the end of the workshop each week.

### Mandatory Course Requirements

In addition to the requirement of achieving at least an overall grade of “C” in order to pass this course you must also:

1. Obtain at least a “40%” grade in the final test;
2. Attend at least seven tutorials

Please note that an attendance register will be kept for both lectures and tutorials.

### Class Representative

A class representative will be elected in the first class, and that person’s name and contact details made available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

### Materials and Equipment

#### *Lab Access*

Information Systems and Electronic Commerce students have access to a range of computer lab facilities. This means that you can still undertake this course even if you don't have a computer at home.

Like all university students you are able to use any SCS computer lab throughout the University (this includes labs in the Murphy building, the Library and in the Law School) as long as you have a

current SCS account. If you don't have a current SCS account, contact either the SCS helpdesk in the Library or the Murphy building.

### ***Ad-hoc Lab Access***

2<sup>nd</sup> and 3<sup>rd</sup> year students of INFO and ELCM students also have access to the purpose built school labs in RW 415 (28 seats) and RW 401 (17 seats). These are available for use when not timetabled for workshops for other courses. Please check the booking schedules on the lab doors before entering a laboratory to ensure that you are not interrupting a class, and you can finish your work before the next scheduled class.

You may be asked to leave the lab by a supervisor if the machine you are using is required for a scheduled class. Please pack-up and leave the lab promptly if asked to do so.

If you are sharing the lab with a scheduled class please use machines furthest away from the projection screen first and avoid interrupting the taught class with noise.

The food and drink ban in the labs will be enforced. Please respect this in order to keep the facilities clean and in good working order for everyone.

### **Communication of Additional Information**

Additional information will be communicated via Blackboard.

### **Use of Turnitin**

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted materials on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

### **Withdrawal from Course**

1. Your fees will be refunded if you withdraw from this course on or before 22 July 2011.
2. The standard last date for withdrawal from this course is 23 September. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an '*Application for Associate Dean's Permission to Withdraw Late*' including supporting documentation

The application form is available from either of the Faculty's Student Customer Service Desks.

**For the following important information follow the links provided:**

### **Academic Integrity and Plagiarism**

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

### **General University Policies and Statutes**

Find key dates, explanations of grades and other useful information at [www.victoria.ac.nz/home/study](http://www.victoria.ac.nz/home/study)

Find out about academic progress and restricted enrolment at <http://www.victoria.ac.nz/home/study/academic-progress.aspx>

The University's statutes and policies are available at [www.victoria.ac.nz/home/about/policy](http://www.victoria.ac.nz/home/about/policy), except qualification statutes, which are available via the Calendar webpage at <http://www.victoria.ac.nz/home/study/calendar.aspx> (See Section C).

Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at [www.victoria.ac.nz/home/about\\_victoria/avcacademic/default.aspx](http://www.victoria.ac.nz/home/about_victoria/avcacademic/default.aspx)

**AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support**

[http://www.victoria.ac.nz/home/about\\_victoria/avcacademic/Publications.aspx](http://www.victoria.ac.nz/home/about_victoria/avcacademic/Publications.aspx)

**Faculty of Commerce and Administration Offices**

<http://www.victoria.ac.nz/fca/studenthelp/>

**Te Pūtahi Atawhai**

**Maori and Pacific Mentoring Programme**

[http://www.victoria.ac.nz/st\\_services/tpa/index.aspx](http://www.victoria.ac.nz/st_services/tpa/index.aspx)