

School of Information Management

INFO222 MODERN SYSTEMS ANALYSIS

Trimester Two 2007

COURSE OUTLINE

Course Details

Credit Value:	22 points
Prerequisites:	INFO102
Restrictions:	INFO212
Dates:	9 July to 14 October 2007

Contact Details

Lecturer & Course Coordinator

Lan Anh Tran
Easterfield Building EA 233
Tel. 04 463 6887
lan.anh.tran@vuw.ac.nz
Office hours: Wednesday between 13:00 and 15:00

Lecturer

Joerg Evermann
Easterfield Building EA 214
Tel. 04 463 6857
jevermann@mcs.vuw.ac.nz
Office hours: To be announced.

Tutor

Balsam Al-dabbagh
Email: balsam.aldabbagh@gmail.com

Class Times and Room Numbers

Lectures

Wednesday, 09:00 to 10:50, MCLT 103

Computer lab workshops

Wednesday, 11:00 to 13:00 at MY 201

Note: This may change due to tutor availability and class size. For up-to-date information, please consult the Blackboard page; Students must attend workshops and have their exercises signed-off by a tutor/lecturer.

Workshops are held in weeks 3, 4, 5, 6, 7, 8, 9, 10.

Final Exam

During exam period, Oct 15 - Nov 11

Course Objectives

On satisfactory completion of this course, students should be able to:

1. Understand the concepts of software engineering and object-oriented development.
2. Have basic knowledge of UML, the language and its associated diagrams for designing software.
3. Model the process of system analysis and design.
4. Analyse and specify business and user needs, and system requirements.
5. Improve knowledge of system quality and the implementation of quality assurance for designing software.
6. Improve knowledge of software project management and its implementation.
7. Distinguish the differences between the iterative, component-based development model (such as Agile methods, Extreme programming, and RUP, etc.) and a traditional waterfall approach.
8. Design major types of UML diagrams using Visual Paradigm software, such as use case, class, activity, state, and deployment diagrams, etc.

Course Content

This course introduces students to the Unified Modeling Language (UML) for software engineering. It covers the concepts of object-oriented and component-based software design and development, and the major diagrams types of the UML model. Additionally, it includes knowledge and concepts associated with quality and quality assurance, verification, validation and testing, software project management, and teamwork.

Both lectures and workshops of the course will provide students with knowledge and skills in creating diagrams based on UML for designing a system/software within organizations. Furthermore, the course will increase students' understanding of the analysis and specification of business and user needs, and system requirements for organizations.

Details of lectures and workshops in this course are available at the end of this course outline.

Expected Workload

Students are expected to spend 2 hours per week in class, 2 hours per week in tutorials/workshop exercises, and 3 to 4 hours per week on studying and reading.

Required Textbook

Stevens, P. and Pooley, R. (2006) *Using UML - Software Engineering with Objects and Components*. 2nd edition. Reading, Mass.: Addison-Wesley.

Assessment Requirements

	<u>%</u>	<u>Due Date</u>
Mid-term Test	30	5 September (50 minutes)

Final exam	50	Scheduled during exam period (2 hours)
Tutorials/workshops	20	As indicated in workshop schedule
TOTAL	100	

Mid-term Test: This will be a 50-minute test held in the normal lecture theatre during the normal lecture time on Wednesday 5 September 2007. Unless otherwise stated, all materials covered in the lectures, recommended readings, and workshops up to that point will be assessable. Details will be advised closer to the date.

Final Exam: This will be a 2-hour exam scheduled during exam period. The date and allocated lecture theatre will be announced during week 12. Unless otherwise stated, all materials covered in the lectures, recommended readings, and workshops during the 12-week course will be assessable. Further details will be advised closer to the date.

Tutorial/Workshop: You will be given an assignment to complete each week during the tutorials/computer workshops. Your mark will be your attendance and participation of the 8 tutorials/workshops. You must show your tutor/lecturer the completed assignment during the workshop in the lab.

To pass the course, each of the mid-term test and final exam must be passed with at least 50%.

Penalties

Workshop participation must be signed-off by the tutor for your class. Late sign-offs will not be accepted (exceptions are made for documented medical and other emergencies).

Mandatory Course Requirements

To pass this course, students must have:

1. correctly enrolled in the course
2. participated at least 6 workshops during the course
3. attained at least 50% of the mid-term test
4. attained at least 50% of the final exam

Communication of Additional Information

Course information will be maintained on the VUW BlackBoard System. All students are required to access this at least twice per week. Email communication from students must be via their SCS email accounts. Email from other email accounts will be ignored.

Faculty of Commerce and Administration Offices

Railway West Wing (RWW) - FCA Student and Academic Services Office

The Faculty's Student and Academic Services Office is located on the ground and first floors of the Railway West Wing. The ground floor counter is the first point of contact for general enquiries and FCA forms. Student Administration Advisers are available to discuss course status and give further advice about FCA qualifications. To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

Easterfield (EA) - FCA/Education/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce and Administration, Education and Law is situated in the Easterfield Building - it includes the ground floor reception desk (EA005) and offices 125a to 131 (Level 1). The office is available for the following:

- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- Forms for FCA Student and Academic Services (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

Notice of Turnitin Use

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 identifies material that may have been copied from other sources including the Internet, books, journals, periodicals or the work of other students. Turnitin is used to assist academic staff in detecting misreferencing, misquotation, and the inclusion of unattributed material, which may be forms of cheating or plagiarism. At the discretion of the Head of School, handwritten work may be copy typed by the School and subject to checking by Turnitin. You are strongly advised to check with your tutor or the course coordinator if you are uncertain about how to use and cite material from other sources. 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.

General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the Victoria University Calendar or go to www.vuw.ac.nz/policy.

For information on the following topics, go to the Faculty's website www.vuw.ac.nz/fca under Important Information for Students:

- Academic Grievances
- Academic Integrity and Plagiarism
- Student and Staff Conduct
- Meeting the Needs of Students with Impairments
- Student Support

Manaaki Pihipihinga Programme

Manaaki Pihipihinga is an academic mentoring programme for undergraduate Māori and Pacific students in the Faculties of Commerce and Administration, and Humanities and Social Sciences. Sessions are held at the Kelburn and Pipitea Campuses in the Mentoring Rooms, 14 Kelburn Parade (back courtyard), Room 109D, and Room 210, Level 2, Railway West Wing. There is also a Pacific Support Coordinator who assists Pacific students by linking them to the services and support they need while studying at Victoria. Another feature of the programme is a support network for Postgraduate students with links to Postgraduate workshops and activities around Campus.

For further information, or to register with the programme, email manaaki-pihipihinga-programme@vuw.ac.nz or phone (04) 463 5233 ext. 8977. To contact the Pacific Support Coordinator, email pacific-support-coord@vuw.ac.nz or phone (04) 463 5842.

TIMETABLE

	Lecture	Reading	Workshop
11 July	- Introduction: Motivation, Software engineering - Model-driven development	1	No workshop
18 July	Object-oriented Principles	2	No workshop
25 July	System Analysis and Business Modeling	3,4	Tutorial on System Specifications
1 Aug	Use Case Models	7,8	Use Case Diagrams
8 Aug	Class Models	5,6	Class Diagrams
15 Aug	State and Activity Diagrams	11,12	State Diagrams
5 Sep	- Mid-term Review - Mid-term Test (50 minutes)		Activity Diagrams
12 Sep	Interaction, Component, and Deployment Diagrams	9,10,13	Sequence Diagrams
19 Sep	Concepts of Reuse and Product Quality	18, 19	Communication Diagrams
26 Sep	Project Management and Quality Assurance	20	Deployment Diagrams
3 Oct	Agile Methods and Extreme Programming	TBA	No workshop
10 Oct	- Introduction to RUP - Course Review, Summary, Conclusion		No workshop