TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

School of Information Management

INFO102 Systems Development

Second Trimester 2005

COURSE OUTLINE

Contact Details

	Staff	Room	Email & Telephone	Office Hours
Course Co-ordinator	Anna Pickering	EA108	Anna.Pickering@vuw.ac.nz Ph. 463-6950	Tues 10-12pm Fri 10-12pm
Course Lecturer	David Johnstone	EA109	David.Johnstone@vuw.ac.nz Ph. 463-5877	Tues 10-12pm; Thurs 1-3pm
Course Lecturer	Allan Sylvester	EA110	Allan.Sylvester@vuw.ac.nz Ph. 463-6659	Wed 10-12pm Fri 10-12pm
Lab Instructor	Mark Moorhouse	EA232	Mark.Moorhouse@vuw.ac.nz	*By appointment

Class Times and Room Numbers

Credit Value: 18 points
Co-requisite: INFO101
Restrictions: INFO212 (prior to 2005)
Dates: 4 July – 9 October 2005
Lectures: KK LT303 (Kirk 303), Tuesdays and Fridays, 9:00 – 9:50am
Tutorials/Workshops: At times and places to be announced on Bb.

Course Objectives

a) Introduce students to the stages of the SDLC and their relevance to the creation of an effective information system;

b) Enable students to understand and apply requirements analysis, data modelling and process modelling;

c) Provide students with an understanding of relevant design issues, including user interfaces, physical and logical design, data storage, and implementation; and

d) Enable students to understand and apply methods for translating process design into IS software, using a designated programming platform (VBA - Visual Basic for Applications).

INFO 102 – Lectures, Tutorials & Workshops		2005 / 2	
DATE	TOPIC	READINGS	Assessment Due
WEEK 1			
Tues 5 July	Introduction to course **[AP, DJ, AS]** An introduction to IS development **[DJ]**	(D&W) – 1	Arrange email/lab accounts; sign up for tutorials & workshops
TUTORIAL	** none **		
Fri 8 July	Requirements determination **[DJ]**	(D&W) – 4	
WEEK 2			
Tues 12 July	Data modelling (ERDs) **[DJ]**	(D&W) – 7 (202-222)	
TUTORIAL	Data modelling exercises (90 mins)		
Fri 15 July	Data modelling (Normalisation) **[DJ]**	(D&W) – 7 (223-231)	
WEEK 3			
Tues 19 July	Data modelling practice **[DJ]**		
TUTORIAL	Data modelling exercises (90 mins)		
Fri 22 July	Use Case Analysis **[DJ]**	(D&W) – 5	
WEEK 4			
Tues 26 Jul	Process modelling (DFDs) **[DJ]**	(D&W) – 6	
TUTORIAL	Use Case Analysis (90 mins)		
Fri 29 Jul	Process modelling practice – 1 **[DJ]**		
WEEK 5			
Tues 2 Aug	Process modelling (Structured English/Decision Trees) **[DJ]**	(D&W) – 6 (176-179)	Assignment 1 Due 2 August, 1pm
TUTORIAL	Process modelling exercises (90 mins)		
Fri 5 Aug	Process modelling practice – 2 **[DJ]**		
WEEK 6			
Tues 9 Aug	Systems design **[DJ]**	(D&W) – 8	
TUTORIAL	Process modelling exercises (90 mins)		
Fri 12 Aug	Program Design **[DJ]**	(D&W) – 12	
***** Mid-Trimester Break *****			
WEEK 7			
Tues 30 Aug	Introduction to systems development with MS-Access **[AS]**	ILT:VBA Programming	
WORKSHOP	Workshop 1	See Bb Readings	
Fri 2 Sept	Data structures in MS-Access **[AS]**		
WEEK 8			
Tues 6 Sept	Implementing MS-Access systems with VBA **[AS]**	ILT:VBA Programming	Assignment 2 Due 6 Sept, 1pm
WORKSHOP	Workshop 2	See Bb Readings	
Fri 9 Sept	Programming Basics **[AS]**		
WEEK 9			
Tues 13 Sept	Designing programs and using objects **[AS]**	ILT:VBA Programming	
WORKSHOP	Workshop 3	See Bb Readings	
Fri 16 Sept	Writing tests **[AS]**		
WEEK 10			
Tues 20 Sept	Solving programming problems **[AS]**	ILT:VBA Programming	
WORKSHOP	Workshop 4	See Bb Readings	
Fri 23 Sept	Collections and debugging **[AS]**		
WEEK 11			
Tues 27 Sept	Using arrays **[AS]**	ILT:VBA Programming	
WORKSHOP	Workshop 5	See Bb Readings	
Fri 30 Sept	Modules and classes **[AS]**		
WEEK 12			
Tues 4 Oct	Guest developer **[AS]**		Assignment 3 Due 8 Oct, 1pm
WORKSHOP	*No workshops		
Fri 7 Oct	Construction **[DJ]** End of course review & exam preparation **[AS / DJ]**	(D&W) – 13	

Delivery Method

Learning materials for this course are delivered in three complementary ways: through (i) lectures, tutorials and workshops; (ii) assigned readings from the prescribed text; and (iii) resources on the (Blackboard) course website. Each method is both important and necessary to achieve the course objectives.

Use of Blackboard

Course Material

Basic course material and announcements will be published on Blackboard on a regular basis.

Announcements

The announcements page for the course will be used to distribute course announcements. You are expected to check the announcements regularly.

Discussion Board

Moderated discussion forums will be provided for assignment work. Staff members will attempt to answer all reasonable questions. In some cases students may be requested to make an appointment as not all questions can be easily answered using this medium.

A close-off date and time for assignment-related questions will be published closer to the due date for each assignment.

Lectures

Lectures will compliment the on-line material and the textbook, but will NOT necessarily cover exactly the same material. Lecture material will not necessarily be published in Blackboard. All lecture material is assessable.

Readings

A. Dennis & B.Wixom (2003). <u>Systems Analysis & Design</u>. Wiley. 2ed. (Custom-published 7 chapter abridged text). RRP. $59.95

Tremblay, D. (Ed.). (2004). Access 2003*: VBA programming.* Boston: Thomson Learning..

Readings: There will be set readings from the textbook each week (see the course schedule below). Students are expected to have completed the set readings prior to attending lectures and tutorials for that week.

Additional Learning Resources

www.microsoft.com/msdn

The Microsoft Developer Network contains reference guides and how-to information about the whole range of Microsoft development technologies.

www.sei.cmu.edu

The Carnegie Mellon Software Engineering Institute is one of the leading software engineering and systems development research institutions.

Computerworld (NZ)

This is a weekly publication available at newsstands or by subscription. Like NZ InfoTech, Computerworld provides up-to-date articles on emerging information technologies and managerial

issues in information systems. There will almost always be some material of interest.

Internet
The enormous range of World Wide Web sites can provide valuable information on a wide range of topics.

Assessment Requirements

Course assessment will be based on the following:

		Due Date
Assignment 1 (Data Modelling)	**15%**	2 August, 1pm
Assignment 2 (Process Modelling)	**15%**	6 September, 1pm
Assignment 3 (Programming)	**25%**	8 October, 1pm
Tutorials	**5%**	weekly (first half of course)
Examination	**40%**	**TBA**
TOTAL	*100%*	

Assignments
Each of the three assignments will focus on different aspects of system development through the use of a business case study (to be made available on Blackboard).

Tutorials
There are five 2-hour tutorials in the first half of the course. Attendance is compulsory, and students will be asked to prepare for their tutorials in advance (assessment will be based on these preparations).

Examination
This will be a 2-hour exam held during the official exam period. Selected material from the lectures and textbook throughout the course will be assessable. More information about this will be provided closer to the time.

Penalties

In fairness to other students, work submitted after the deadline will incur a 10% penalty (of the marks achieved for the project) for each working day (prior to 4:00 pm) late. In the event of bereavement or prolonged illness affecting your ability to meet the deadline, discuss your situation with the Course Coordinator. You must verify your claim, e.g., produce a medical certificate. By doing so you agree to verification of documentation. Extensions will only be granted under these conditions.

*Please note: Certificates from the Student Counselling Service are no longer accepted as documentary evidence to support an extension.

Responsibilities for Assignment Submission

Assignments 1 and 2 must be word processed, including diagrams (these can be created using VISIO), and posted in the box provided for the purpose on Level 1 of the Easterfield Building (***Box A1***, outside Room EA 111, at the end of the corridor). Assignment 3 must be submitted electronically. Details of how to submit electronically will be made available closer to the due date.

Scaling
To obtain a fair and consistent distribution of marks relative to assessment difficulty, scaling of marks may be employed on some or all assessments.

Mandatory Course Requirements

To pass this course, students must have:

1. **correctly enrolled in the course;**
2. **attended at least <u>four</u> out of the five tutorials;**
3. **attended at least <u>five</u> out of the six workshops;**
4. **attained at least 40% of the possible marks for the examination; and**
5. **attained a weighted average over all assessments of at least 50%.**

Tutorials / Workshops

Tutorials provide students with learning opportunities in a smaller class environment. Students are required to attend at least four out of the five tutorials offered in the first half of the course. Each 2-hour tutorial will involve both some discussion around issues relevant to the lecture material, and considerable practice in problem-solving activities. The latter will provide useful feedback on exercises similar to the types of problems encountered in the assessments.

Workshops provide opportunities for learning about a range of programming-related issues based around Visual Basic. Students are required to attend at least five out of the six workshops offered in the second half of the course. Each 2-hour workshop will involve some formal instruction, combined with considerable practice applying programming principles covered in the lectures, with guidance from Workshop Supervisors.

Allocations to specific workshops and tutorials will be outlined in the first week of the course.

Communication of Additional Information

All formal notices relating to this course will be posted on the Blackboard website - you are expected to log on and check for announcements on a regular basis, at least two or three times a week. Final grades will be posted on the Information Systems noticeboard located on the ground floor of the Easterfield Building, opposite the lifts (elevators).

The INFO102 website can be accessed at:

http://blackboard.vuw.ac.nz.

Important Notes:

- *No extension is possible based on a student's workload*. You are expected to manage your workload to ensure there is sufficient time to complete assessments as required.

- *You are expected to back up your work* – From time to time files are lost, computers crash, etc., so it is critical that you get into the habit of backing up important files (on floppy disk or ZIP disk, for example). Extensions will not be granted due to files lost and not backed up!

- *Do not leave submitting your work to the last minute* – technology problems do occur (especially on the day an assignment is due). Printers may be overloaded, servers may be slow, etc. Be smart and submit it in plenty of time. Extensions will not be granted due to problems with submitting work.

- *Be careful to submit your assignment according to instructions given*. If it is placed in the wrong box, or submitted using a method that has not been specified, it will not be marked.

- *Working together* – You are encouraged to discuss aspects of assignment work with others. However, when it is time to *develop your solution & write your assignment*, **the words and diagrams you use must be ENTIRELY your own**. In this way, we will have *your* perspective on the topic - not someone else's! Markers have been instructed to check for signs of plagiarism and joint efforts.

Faculty of Commerce and Administration Offices

Railway West Wing (RWW) - FCA Student Administration Office
The Student Administration 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.

Easterfield (EA) - FCA/Law Kelburn Office
The Kelburn Campus Office for the Faculties of Commerce & Administration 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, will be open from 9:00 am to 5:00 pm during Trimester 2, offers the following:
- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- FCA Student Administration forms (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

Please note:
There will be a Student Administration Adviser, from the RWW office, based in EA005 from Monday 27 June to Friday 1 July (9:00 am to 5:00 pm) and from Monday 4 July to Friday 22 July (11:00 am to 1:00 pm).

General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

Student Conduct and Staff Conduct

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at: www.vuw.ac.nz/policy/StudentConduct.
The policy on Staff Conduct can be found on the VUW website at:
www.vuw.ac.nz/policy/StaffConduct.

Academic Grievances

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:
www.vuw.ac.nz/policy/AcademicGrievances.

Academic Integrity and Plagiarism

Academic integrity is about honesty – put simply it means **no cheating**. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. Plagiarism is **prohibited** at Victoria.

The University defines plagiarism as follows:
Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not.

'Someone else's work' means anything *that is not your own idea, even if it is presented in your own style. It includes material from books, journals or any other printed source, the work of other students or staff, information from the Internet, software programmes and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.*

Plagiarism is not worth the risk.

Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct *(*www.vuw.ac.nz/policy/studentconduct) and may be penalized severely. Consequences of being found guilty of plagiarism can include:
- an oral or written warning
- suspension from class or university
- cancellation of your mark for an assessment or a fail grade for the course.

Find out more about plagiarism and how to avoid it, on the University's website at:
www.vuw.ac.nz/home/studying/plagiarism.html.

Students with Disabilities

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: disability@vuw.ac.nz. The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

Student Support

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at www.vuw.ac.nz/st_services/ or email student-services@vuw.ac.nz.

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email education@vuwsa.org.nz.

Maori and Pacific Mentoring programme (Manaaki Pihipihinga)

This is a free programme of mentoring for Maori and Pacific students doing first year courses within the Faculty of Commerce and Administration. Weekly one hour mentoring sessions: drafting and editing assignments/discussing any questions that you might have from tutorials or lectures and going over every aspect of essay writing, either in small group sessions or on a one-to-one basis.

This includes:
- A computer suite hooked up to cyber commons for students to use to produce their assignments.
- Regular skill-based workshops with a learning adviser from Student Learning Support Services.
- Networking with other Maori and Pacific support groups throughout the university.

For more information please contact:
Melissa Dunlop, Programme Coordinator
Ph: 463 6015 or Email: Maori-Pacific-Mentoring@vuw.ac.nz