

School of Information Management  
**INFO 332 - Advanced Systems Analysis**  
 Trimester One, 2014  
**COURSE OUTLINE**

Lecture time	Lecture Room
Wednesday & Thursday, 11:30 - 12:20	RHLT3

### Course Description

This course provides a working knowledge of modern systems and analysis and design principles. Topics include tools and techniques of the systems analyst and the process of systems analysis and design, as well as object-oriented design and other modern methodologies.

### Mandatory Course Requirements

To pass the course, you must:

- 1) Attend at least six workshops and get a sign-off.

If you cannot complete an assignment or sit a test or examination, refer to [www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

### Assessment Requirements

Item	Weight	Outputs <sup>1)</sup>
Assignment 1 (BPMN)	25%	Process Improvement Plan (PIP) with the following items: 1) As-Is model 2) List of constraints 3) List of suggested improvements 4) To-Be model
Assignment 2 (UML)	25%	System Analysis & Design (SAD) specification document with the following items: 1) Requirements matrix 2) Use cases 3) Activity diagrams 4) Class diagram 5) Component diagram 6) Package diagram
Mid-course test (50 min.)	25%	
Final test (50 min.)	25%	
TOTAL	100%	

NOTES:

- 1) Due dates for outputs are described in the Weekly Schedule.

### Examinations

This course does not involve examinations. The final test for this course will be held on the 12<sup>th</sup> week of the trimester.

## Expected Workload

This is a 15-point course. One point should equate to 10 hours of work, which means a total of 150 hours for a 15-point course. Each week, students are expected to spend about:

- 2 hours in lectures
- 4 hours preparing for lectures
- 1 hour in the workshop
- 2 hours preparing for the workshop
- 3-5 hours preparing the course assignments

## Readings

BPMN:

- Introduction to BPMN. Stephen A. White. OMG.  
([http://www.omg.org/bpmn/Documents/Introduction\\_to\\_BPMN.pdf](http://www.omg.org/bpmn/Documents/Introduction_to_BPMN.pdf))
- Business Process Model and Notation (BPMN). Version 2.0. OMG. 2011.  
(<http://www.omg.org/spec/BPMN/2.0/>)

UML:

- Learning UML 2.0 A Pragmatic Introduction to UML. Russ Miles, Kim Hamilton. O'Reilly Media. 2006.  
(<http://it-ebooks.info/go.php?id=307-1366703170-37c460c18b1c7183790610db23a0e2de>)

Other suggested readings:

- Dennis, Wixom & Tegarden. Systems Analysis and Design with UML version 2.0: An Object Oriented Approach. Wiley (ISBN 978-1-118-03742-3). Available at the Victoria University Bookshop. There are small variations between editions, which are not relevant.

## Names and Contact Details

	Staff	Room	Email & Telephone	Office Hours
Course Lecturer & Coordinator	Pedro Antunes	RH526	<a href="mailto:pedro.antunes@vuw.ac.nz">pedro.antunes@vuw.ac.nz</a> 04 463 5525	Send email to arrange an appointment

## Trimester dates

From Monday 3<sup>rd</sup> March to Sunday 8<sup>th</sup> June  
There is no final examination for this course.

## Course Delivery

This course involves learning and practicing advanced analysis & design methods and tools. Learning material for this course is provided using:

1. Lectures
2. Workshops held in computer laboratories
3. The online learning support tool Blackboard

The course is delivered over 12 weeks of work. Each week consists of two lectures and a workshop (excluding week 1).

## Course Learning Objectives

Objective	On completion of this course students should be able to
1	Perform systems analysis and design activities with focus on business value
2	Manage the relationships between business and systems requirements
3	Manage the relationships between requirements determination, analysis, design, and communication
4	Use BPMN and UML, the languages and associated diagrams, as support to analysis and design activities
5	Design the major types of BPMN and UML diagrams using visual tools

## Relationships to Assessment Items

Item	CLO
Assignment 1	1,4,5
Assignment 2	2,3,4,5
Mid-course test	4
Final test	4

## Workshops

You will attend a 1-hour workshop each week where you practice analysis and design methods, develop diagrams and other types of representations, and work on your assignments. Workshops are not marked, although you are required to attend at least six workshops.

You are expected to work on the assignments in your own time before the scheduled workshop time. The workshop sessions allow time for showing progress, discussing problems, and getting feedback on assignments. Please note that workshops are particularly important to get critical comments and suggestions on how to improve the quality of your outputs.

## Workshop Signups

You must sign up for a workshop by via <https://signups.victoria.ac.nz/>. The deadline for sign up is specified in the Weekly Schedule and announced on Blackboard.

## Workshop Signoffs

When you have completed your participation in a workshop, a tutor will record a sign-off. Do not forget that you need to collect sign-offs for at least six workshops.

## Assignments

Students will accomplish two assignments, one focussed on business analysis and another involving system analysis, which require using visual tools to develop BPM and UML models, respectively.

Assignment outputs must be submitted according to the instructions given on the Weekly Schedule or, whenever necessary, to instructions updated on Blackboard.

## Materials & Equipment

Students should use the computer laboratories provided by SIM for this course. The computer laboratories are open from 8am to 8pm each day every day, and are accessible by swipe card if you are enrolled at SIM. The software you need to complete workshops and assignments is provided on these machines. However, if you want to work on your own computer you will be able to install free versions of ARIS Express and Bonita BPM, and licenced versions of Visio (through MSDNAA). Details about installing this software are provided on Blackboard.

NOTE: VUW cannot support your personal computer or any course related software installed on it even if it is supplied by VUW. If you do work on your own computer you must test your work on SIM's computers before submitting your assignments. When using your own computer, you must ensure that submitted outputs are compatible with the software versions installed in SIM's laboratories. In addition, some tools may require additional software to operate successfully on some computers.

## Missing Deadlines

If you have to miss or missed a deadline due to your sickness, attending a family funeral, representing NZ in a sport event or anything similar, please bring an official supporting document to the Course Coordinator to get an extension. If you miss the deadline for other than the above reasons, you are responsible for that and you will not get an extension.

## Important Notes

- 1) Do not leave submitting your work to the last minute. Technology problems do occur, especially on the day an assignment is due. Extensions will not be granted due to problems with submitting work.

- 2) Be careful to submit your assignment according to instructions given. Your work will not be marked if the submission instructions are not followed.
- 3) Ensure compatibility between the assignment outputs developed with a personal computer and the software installed in SIM's labs.
- 4) 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.
- 5) You are expected to back up your work. From time to time computer files are lost, computers crash, etc., so it is critical that you frequently back up your important files.

## Group Work

You are encouraged to discuss and share aspects of assignment work with others. However, when it is time to submit your assignment outputs, the materials you use must be entirely your own.

## Academic Integrity & Plagiarism

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

## Grading assignments

The grading of assignments will follow the mark allocation scheme described in the assignment handouts.

IMPORTANT NOTE: This course involves analysis & design—this is very different from solving problems with correct answers. During analysis & design, students decide on issues with no right answer, for which greater latitude of decision is assumed. For that reason the assessment of analysis & design outputs usually involves subjective criteria. Although more specific guidelines will be described in the assignment handouts, the quality of outputs will be primarily assessed according to two main criteria: modelling detail and conformity with the adopted modelling notation.

## Scaling

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

## Final Grading

Marks from the assignments will be added to produce a letter grade allocated according with the following standard distribution.

Letter grade	Number grade
A+	90-100
A	85-89
A-	80-84
B+	75-79
B	70-74
B-	65-69
C+	60-64
C	55-59
C-	50-54
D	40-49
E	00-39

## Late Penalties & Extensions

Your work must be submitted before the deadline specified in the Weekly Schedule. If your work is submitted after the deadline and without an extension granted or without a serious excuse (supported by medical certificate or other official documentation), you will incur a 10% penalty for each day that the work is late, weekends included and after 5 working days (by 00:00) we will NOT accept the late submission. The penalty is calculated based on the marks you achieve for the assignment. Penalties accrue each day after the initial time of the submission deadlines.

**You must verify your claim when requiring an extension, e.g. produce a medical certificate.** By submitting evidentiary documents to support your claim, you consent for the Course Coordinator to verify the authenticity of such documents by contacting the relevant parties. Extensions will only be granted under these conditions. You must also apply for extensions **before** the due date unless there is an exceptional circumstance warranting the relaxation of this rule.

In the event of bereavement or a prolonged illness affecting your ability to meet deadlines, discuss your situation with the Course Coordinator.

## Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 14<sup>th</sup> March 2014.
2. The standard last date for withdrawal from this course is Friday 16<sup>th</sup> May.

After the date stated in 2, 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.

## Note to Students

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 academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

## Discussion Forum – Asking Questions Online About the Course

Opportunities to ask questions about the course will be available on Blackboard. The Discussion Forum is a very useful tool to raise questions about the course, since other students can also see your question and the responses to it.

- Make sure you regularly check this forum to see what has been asked and what has been answered (otherwise you can miss something important).
- If you still have not found the answer to your query, try posting your question on the forum yourself!
- If you think you know the answer to some other student's question, do not hesitate to post a response.
- Make sure that all questions are relevant to the course.
- The use of appropriate language is expected at all times. All students are expected to respect one another while using this tool.

## Use of Email as a Communication Medium

Email may also be used as a form of communication; hence it is vital that students check their email regularly. The University has provided each student with a student email address and all email correspondence will be sent to that email address. Should a student forward his/her email to another email provider, it is her/his responsibility to ensure that that forwarded mailbox is capable of receiving the emails (i.e. mailbox is not full, capable of supporting attachments, etc.) Students must check their student records and ensure the appropriate email address is set. You can do this through My Victoria → Student records. Not receiving an email will not be a valid excuse for missing information.

Email should not be used to ask questions about the course. Use Blackboard for that purpose.

## 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 submitted to Turnitin. A copy of submitted materials will be retained 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.

## Faculty of Commerce Offices (<http://www.victoria.ac.nz/vbs/studenthelp>)

Ground floor of Rutherford House (RH) - FC Student Administration Office

The Student Administration Office is located on the ground floors of Rutherford House. It is the first point of contact for general enquiries and FC forms. Student Administration Advisers are available to discuss course status and give further advice about FC qualifications. To check for opening hours call the office on (04) 463 5376.

#### Easterfield (EA) - FC/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce and Law is situated in the Easterfield Building (EA121). The office is available for the following:

- 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.

Check with the Student Administration Office for opening times (04) 463 5376.

## **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.

## **Student feedback**

Student feedback on University courses may be found at [www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://www.cad.vuw.ac.nz/feedback/feedback_display.php)

## **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)

## **Link to general information**

For general information about course-related matters, go to

<http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

## **Victoria International Leadership Programme (VILP)**

We encourage student to consider joining "Victoria International Leadership Programme (VILP)" which is an academically-oriented extra-curricular programme of seminars, speaker events and experiential activities relevant to the themes of: international leadership, cross-cultural communication, global connectedness and sustainability.

All currently enrolled Victoria University of Wellington students, except those in pre-degree programmes, may join VILP. The programme will enhance leadership skills, international knowledge and cultural awareness, as well as encourage interaction between international and domestic students, and across the various university faculties. Complete the online registration form on the VILP website

<http://www.victoria.ac.nz/home/vilp/default.aspx>

# Weekly Schedule

**NOTE:** Small adjustments to the course contents may be accomplished to reflect the course dynamics. Such changes will be published on Blackboard.

INFO332 – Weekly Schedule				2014 / T1
Wk	L/Ws	Day	Topic	Critical Actions
1	L	W 5/3	Course details and arrangements	<b>Ws sign up: Before 7 March, 17:00</b>
	L	T 6/3	Introduction to the business view	
	-		No workshop	
2	L	W 12/3	BPMN: Events, activities, gateways	Introduction to assignment 1
	L	T 13/3	BPMN: Flows, associations	
	Ws			
3	L	W 19/3	BPMN: Swimlanes	As-is analysis
	L	T 20/3	Modelling the business architecture	
	Ws			
4	L	W 26/3	Modelling process patterns	Constraints and improvements
	L	T 27/3	Modelling business problems	
	Ws			
5	L	W 2/4	Concluding the business view: Strategies and tactics	<b>Mid-term test: 3 April</b> (11:30, unless a room is not available)
	L	T 3/4	Mid-term test	
	Ws		To-be analysis	
6	L	W 9/4	Introduction to the system view	<b>PIP: Before 13 April, 00:00, on Blackboard</b>
	L	T 10/4	Requirements determination	
	Ws		Introduction to assignment 2	
7	L	W 16/4	UML: Use cases	Requirements
	L	T 17/4	UML: Activity diagrams	
	Ws			
8	L	W 7/5	UML: Class diagrams	Use cases
	L	T 8/5	UML: Sequence diagrams	
	Ws			
9	L	W 14/5	UML: Communication diagrams	Activity diagrams
	L	T 15/5	UML: Package diagrams	
	Ws			
10	L	W 21/5	UML: Component and deployment diagrams	Class diagram
	L	T 22/5	Systems analysis versus systems design	
	Ws			
11	L	W 28/5	Modelling the system architecture	Component diagram
	L	T 29/5	Modelling the user interface	
	Ws			
12	L	W 5/6	Concluding the system view: Strategies and tactics	<b>Final test: 6 June,</b> (11:30, unless a room is not available) <b>SAD: Before 8 June, 00:00, on Blackboard</b>
	L	T 6/6	Final test	
	Ws		Package diagram	