Victoria
UNIVERSITY OF WELLINGTON

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

School of Information Management

INFO141 SYSTEM ANALYSIS

Trimester 2, 2016

COURSE OUTLINE

Prescription

This course covers the IS system development life cycle (SDLC) from a business perspective. It introduces basic techniques for analysing business flows, information analysis, objects and classes. It introduces techniques for documenting information systems requirements in an object-oriented modelling language.

Course Learning Objectives

By the end of the course, you should be able to (week # in parenthesis):
1. Translate business needs in terms of information flows and stores
2. Select the appropriate techniques for problem definition and information systems design
3. Apply the different stages of the SDLC
4. Document information systems requirements in an object-oriented modelling language

Trimester Dates

Teaching Period: Monday 11th July – Friday 14th October
Study Period: Monday 17th October – Thursday 20nd October
Examination Period: Friday 21st October – Saturday 12th November (inclusive)

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 22nd July 2016.
2. The standard last date for withdrawal from this course is Friday 23rd 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 or online.

Names and Contact Details

	Staff	E-mail & Telephone	Room	Office Hours
Course Coordinators & Lecturers	Yi-Te Chiu	yi-te.chiu@vuw.ac.nz 04 463-5689	RWW208	meetings by appointment
	Benoit Aubert	benoit.aubert@vuw.ac.nz 04 463-5421	RH 517	meetings by appointment
SIM Undergraduate Support Team		simstudents@vuw.ac.nz 04 463-6659	MY214	Mon & Wed 11am-4pm
			RH 521	Mon-Fri 10am-4pm or by appointment

Class Times and Room Numbers
Friday 11:00 - 12:50
Hugh Mackenzie HMLT205

Tutorial/Workshop Signups
Sign up via myAllocator before 5pm Monday 18 July https://student-sa.victoria.ac.nz/

Please note: workshop hopping is not permitted. If you need to temporarily change to another workshop, please contact the SIM Undergraduate Support Team for permission.

Course Delivery
Learning materials for this course are delivered in complementary ways: through (i) lectures and workshops; (ii) resources on the (Blackboard) website; and (iii) on the IIBA website. Each method is both important and necessary to achieve the course objectives.

Course Content

Week	Topic	Readings	Notes
1 15th July	• Understanding business analysis and the role of a business analyst • Knowing the basic methodologies used (SDLC and development methodologies, such as structured, RAD, agile)	Chapter 1 - What Is a Business Analyst? Business Analysis: Best Practices for Success by Steven P. Blais Chapter 1 - Introduction to Systems Analysis and Design Systems Analysis and Design with UML, Version 2.0: An Object-Oriented Approach, Fourth Edition by Alan R. Dennis Supplementary: -Chapter 2 in Agile Extension to the BABOK Guide	Signup for workshops before 5 pm, July 18th
2 22th July	Problem identification, vision statement, context diagram	Chapter 8 - Define the Problem Business Analysis: Best Practices for Success by Steven P. Blais Context Diagram: http://www.ibm.com/developerworks/library/ararchdoc2/index.html?S_TACT=105AGX20&S_CMP=EDU Supplementary: Chapter 3 - Goals Discovering Requirements: How to Specify Products and Services by Ian Alexander and Ljerka Beus-Dukic	WS1: Install required software and access IIBA resources
3 29st July	• Types of requirements (business, stakeholders, functional, non-functional, transitional, etc.) • How to write requirements statements • Stakeholders analysis	Chapter 2 and Ch 3 (section 3.2) Business Analysis Key Concepts in BABOK v.3	WS2
4 5th August	Introduction to Modelling	Information flow modelling with LINQ www.linq.it	WS3

5 12th August	Understanding the problem • Document analysis • Interviews	Chapter 3 - Requirements Determination Systems Analysis and Design with UML, Version 2.0: An Object-Oriented Approach, Fourth Edition by Alan R. Dennis	WS4
6 19th August	Understanding the problem (2): • Observation • Questionnaire Use case modelling (part 1) • Use case diagrams	Chapter 4 - Business Process and Functional Modeling in Systems Analysis and Design with UML, Version 2.0: An Object-Oriented Approach, Fourth Edition by Alan R. Dennis	WS5
Mid-trimester break 22 August – 2 September			
7 9th September	Identification of use cases (as-is) • Actor oriented approach • System oriented approach Use case modelling (part 2) • Use case descriptions	(Revisit) Chapter 4 - Business Process and Functional Modeling in Systems Analysis and Design with UML, Version 2.0: An Object-Oriented Approach, Fourth Edition by Alan R. Dennis	WS6
8 16th September	Measuring processes (as is) • Efficiency • Value added • Root-cause analysis	Value-Added Analysis, part of Sue Conger, Chapter 6 - Process Leaning, in Process Mapping and Management (2011) Define the Real Problem, part of Steven Blais, Chapter 8 - Define the Problem, in Business Analysis: Best Practices for Success 2012.	WS7
9 23th September	Business analysis in Agile environment	Chapter 5 - 30 Ways for the Agile Business Analyst to Add Value to Your Project in The Power of the Agile Business Analyst: 30 Surprising Ways a Business Analyst Can Add Value to Your Agile Development Team by Jamie Lynn Cooke	WS8
10 30th September	Alternative way to think about solutions: modelling human computer interaction and design ideas • Diagrams • Storyboarding and design ideas • Paper prototyping	7.13: Prototyping; 7.14: Storyboarding; 7.15: Idea-Generating Techniques (Brainstorming) Chapter 7 - Ways to Gather Requirements, in Determining Project Requirements (2008) by Jonasson Hans	WS9
11 7th October	Producing usable and testable requirements document	The Anatomy of Requirements, part of Blais, Steven, Chapter 14 - Write the Solution Document, in Business Analysis: Best Practices for Success (2012) Chapter 7 - Specifying Requirements Getting It Right: Business Requirement Analysis Tools and Techniques by Kathleen B. Hass, Don J. Wessels and Kevin Brennan (2008) http://www.cdl.edu/cdl_resources/writing-requirements	WS10

12 14th October	Strategy analysis (BABOK v. 3): Analyse current state, define future state, assess risk, change strategy Feasibility analysis, including organizational changes	Assessing and Managing Investment Risks, part of Ward, J. and Peppard, J., Chapter 9 - Managing Investments in Information Systems and Technology, in Strategic Planning for Information Systems, Third Edition, 2002 Feasibility analysis, part of Dennis, A., Chapter 2 - Project Management Systems Analysis and Design with UML, Version 2.0: An Object-Oriented Approach, Fourth Edition, 2012 Supplementary: Technique 40: Gap Analysis in Chapter 4 - Analyse Needs in Business Analysis Techniques: 72 Essential Tools for Success by James Cadle, Debra Paul, and Paul Turner	W11 (optional-TBD)

Readings
Readings for each week can be found in the IIBA online library (http://www.iiba.org/Learning-Development/Online-Library.aspx). To be able to access the library, you need to become an IIBA member. Check Blackboard for the registration process and discount code.

Bibliography

Alexander, I. F., & Beus-Dukic, L. (2009). Discovering requirements: how to specify products and services. New York, NY: John Wiley & Sons.

Blais, S. (2011). Business analysis: best practices for success. Hoboken, NJ: John Wiley & Sons.

Cooke, J. L. (2013). The Power of the Agile Business Analyst: 30 surprising ways a business analyst can add value to your Agile development team. IT Governance Ltd.

Cadle, J., Paul, D., & Turner, P. (2010). Business analysis techniques: 72 essential tools for success. London, UK: BCS, The Chartered Institute.

Dennis, A., Wixom, B. H., & Tegarden, D. (2012). Systems analysis and design with UML, Version 2.0: An Object-Oriented Approach. Hoboken, NJ: John Wiley & Sons

Hass, K. B., Wessels, D. J., & Brennan, K. (2007). Getting it right: business requirement analysis tools and techniques. Management Concepts Inc..

IIBA (2015). A guide to the business analysis body of knowledge v.3. Toronto, Canada: International Institute of Business Analysis.

Jonasson, H. (2012). Determining Project Requirements: Mastering the BABOK® and the CBAP® Exam. CRC Press.

Mandatory course requirements
In addition to obtaining an overall course mark of 50 or better, students must get a 50% minimal score in the exam.

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

Expected Workload
This is a 15-point course. One point equates to approximately 10 hours of work, for a total of
150 hours for the course. Each week, students are expected to spend about:
- 2 hours in the lecture
- 4 hours preparing for the lecture
- 1 hour in the workshop
- 2 hours preparing for the workshop
- 3 hours preparing the course assignments and studying for the exam

We strongly suggest that you attend all weekly workshops where you gain practical knowledge on
business analysis to work on assignments and final project.

Assessment

Requirement	Due Date	Weight
Workshop or Class tasks (6 x 5%) (LO 1–4) Note: students have to submit 6 of 8 possible tasks: • Context diagram • Causal diagram • Stakeholder analysis • Interview exercise • Linq diagrams • Use case • Paper prototype • Vision statement	See Blackboard	30%
Final Project (LO 1–4) Part 1 Part 2	 Noon Friday August 26th Noon Sunday October 16th	 15% 25%
Final Exam (LO 1–4) The exam is intended to evaluate your knowledge of business analysis and models. It will cover all class material.	TBD (Friday 21st October – Saturday 12th November)	30%

The Assessment Handbook will apply to all VUW courses: see
http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf.

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 examination for this course
will be scheduled at some time during the following period:

Friday 21st October – Saturday 12th November (inclusive)

Penalties
The penalty for late submission of work without a prior extension arrangement is a reduction of
10% of the available marks each calendar day, starting from the due date and time, up to 5 days
after the due date. At the course coordinator's discretion, work handed in after 5 days may be
assessed and feedback provided, but no grade will be assigned.

Extensions

Personal extensions are granted only in special circumstances and supporting evidence such as a medical certificate may be requested by the course coordinator or SIM undergraduate support team. Requests for an extension should be emailed to simstudents@vuw.ac.nz

Non-extendable assessments. For some work, such as: lab projects, case discussion preparation, and tutorial preparation there is no possibility of late submission as the opportunity for the work to be completed has already passed.

Group Work

Students are required to work together in some workshop as well as participate in team activities in the classroom.

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.

Materials and Equipment

Students may use software available in the computer labs provided by SIM for this course. The computer labs in Murphy 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 workshop exercises and assignments is provided on these machines.

Software: Students will involve requirements modelling using Linq. This software is available through a web browser. Instructions will be provided on Blackboard.

Software and modelling logic used has been changed to better reflect the needs of first-year students. The tools are professional ones, used in the industry. Material has been updated to use the resources of the IIBA (International Institute of Business Analysts)

Student feedback

1. Students appreciated learning BA concepts and skills through a variety of exercises and assignments. Besides hands-on exercises in workshops, we will provide more activities during class (the amount of lecture time will be reduced).
2. Students indicated that the content was too much. We revamp the course by focusing on the analysis of an "as-is" situation and leaving the design of a "to-be" model to 200-level courses. Additionally, considering the ever-changing business environment nowadays, business analysis in Agile environment is emphasised.
3. The amount of work required in the last year's course was relatively high. We have made an adjustment to return to normal workload for 100-level courses.

Student feedback on University courses may be found at www.cad.vuw.ac.nz/feedback/feedback_display.php.

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.

Link to general information

For general information about course-related matters, go to
http://www.victoria.ac.nz/vbs/studenthelp/general-course-information

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.

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