

BUSINESS SCHOOL

Course Outline 2017 INFOSYS 220: BUSINESS SYSTEMS ANALYSIS (15 POINTS)

Semester 2 (1175)

Course Prescription

An Information Technology (IT) professional must understand how IT systems are constructed, tested, and quality is assessed, in order to manage, develop or provide innovative business solutions. Business Systems Analysis introduces systems development process concepts and activities, with a strong focus on understanding the problem and solution through modelling.

Programme and Course Advice

Prerequisite: INFOSYS 110 or INFOSYS 120 or INFOMGMT 192 or COMPSCI 105

Restriction: INFOMGMT 291

Goals of the Course

The overall course objective is to promote the conceptual and skill based learning needed to understand the process of analysing and designing information systems from the perspective of a Business Systems Analyst (BSA). A BSA works with the business to understand their multi-faceted needs. While a BSA's speciality and focus is the business' needs related to information systems, a holistic approach is necessary to deliver a sustainable and long-term solution that delivers value. This course concentrates on the front-end of the systems development process; that is, the analysis process. The analysis process provides a strong basis for understanding and modelling the user needs in an information system solution. The course therefore touches on project planning and management aspects, as well as the design of computer programs in order to provide an overview of the whole information system development process. The development of skills is stimulated through course readings and lectures, practice in lectures, laboratories and assignments, and through interaction with the teaching team. In the final project, students will work in teams to practise the major steps and techniques in the whole information systems development process: from gathering information through to design, implementation, and documentation of the implemented system.

Learning Outcomes

By the end of this course it is expected that the student will be able to:

- describe the different Information Systems development methodologies, and the respective people, cultural, technical and business considerations involved in choosing an appropriate Information System;
- 2. identify the major activities and deliverables involved in each phase of a basic system development lifecycle (SDLC);
- 3. perform the major activities involved in the analysis phase of a basic system development lifecycle (SDLC) applying appropriate strategies and techniques to understand and meet the multi-faceted needs of a customer;
- 4. demonstrate familiarity with the set of typical tasks and techniques used by Business Systems Analysts to design an information systems solution to meet business requirements, such as reading and creating simple models to design a solution;
- 5. analyse a business problem or opportunity and develop an appropriate strategy to deliver a feasible, long-term, sustainable and value adding solution;
- 6. produce the requisite systems documentation at each point in the analysis of an information system, and to do so with clarity and completeness;
- 7. design and develop a user interface; and
- 8. work as a team to identify and apply the basics of project management.

Content Outline

- Week 01 Introduction to Business Systems Analysis and the SDLC
- Week 02 Planning phase techniques
- Week 03 Analysis phase techniques
- Week 04 Analysis phase modelling
- Week 05 Analysis phase modelling
- Week 06 Analysis phase modelling
- Week 07 Design phase techniques
- Week 08 Design phase techniques
- Week 09 Implementation phase considerations
- Week 10 Implementation phase considerations
- Week 11 Operations and Maintenance phase considerations
- Week 12 Agile methodologies

An exact lecture-by-lecture outline will be provided during semester.

Learning and Teaching

The course is delivered in three one-hour lectures and one two-hour laboratory each week. Laboratories are tutored sessions where techniques and concepts discussed in lectures are put into practice. These sessions are an essential part of this course and attendance is strongly recommended. In addition, students will be expected to read and work on assignments/tests/self-revision for a minimum of five hours per week. The course uses case studies as a basis for practice in lectures, laboratories, and assessments.

In the first week of lectures, assessment and other procedures related to the course will be clarified. Lecture outlines, additional information and announcements will be made available on Canvas during the course of the semester as necessary.

Teaching Staff

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Learning Resources

Canvas is the primary location for material, information, and interaction between students and the teaching team and other students.

Lightly Recommended Text: Dennis, A., Wixom, B. H., Roth, R. M., Wixom, B. H., & Roth, R. M. (2014). *Systems analysis and design, Sixth edition*.

Available as e-text from <u>Wiley</u> ISBN-13: 978-1118897843 ISBN-10: 1118897846

Software: Most of the software used in this course is freely available for students to download and install at home. Details will be provided in the labs.

Additional resources will be made available via Canvas.

Assessment

Group assignment (multiple deliverables)	15%
2x Individual assignments	12%
Fortnightly online quizzes	10%
Weekly lab exercises	8%
Presentation	5%
Test	20%
Final exam	30%
	1000/
Total	100%

Academic Integrity

In attempting any assessment you agree to adhere to all the principles and practices of academic honesty and integrity for the University of Auckland outlined here: https://www.auckland.ac.nz/en/about/learning-and-teaching/policies-guidelines-and-procedures/academic-integrity-info-for-students.html.

The work that a student submits for grading must be the student's own work, reflecting his or her learning. Where work from other sources is used, it must be

properly acknowledged and referenced. A student's assessed work may be reviewed against electronic source material using computerised detection mechanisms.

Any form of cheating, plagiarism, assistance in cheating, unfair collaboration, or other behaviour deemed to be academic misconduct will not be tolerated. Academic misconduct will be dealt with according to University's Student Academic Conduct Statute (https://cdn.auckland.ac.nz/assets/central/about/the-university/how-the-university-works/policy-and-administration/student-academic-conduct-statute.pdf).

Pass requirement

In order to pass this course, a student must achieve a pass separately in both the following components:

- 1. Test and final exam combined
- 2. All other assessments (excluding the test and final exam) combined

Extensions and late submissions

Extensions and alternate submissions are determined on a case-by-case basis. Extensions must be arranged with course staff several days *prior* to the assessment deadline. Late submissions are generally not accepted, and will attract heavy penalties if they are. The broad relationship between these assessments and the course learning outcomes is as follows:

Learning	Group	Individual	Online	Lab	Presen-	Test	Final
Outcome	assignment	assignments	quizzes	exercises	tation		Exam
1		Х	Х	Х		Х	
2	x	Х	Х	Х		Х	Х
3	x	х		Х		х	Х
4	x	Х	Х	Х	Х	Х	Х
5	x	X	Х	Х	Х	Х	Х
6	×	X		Х	Х	Х	Х
7	x			Х			
8	x			Х	Х		

International Institute of Business Analysis (IIBA) membership

The ISOM department is an Academic Member of IIBA® and INFOSYS 220 is eligible to offer the Academic Certificate in Business Analysis Program.

All students who pass this course with a B grade or higher will be issued an IIBA Academic Certificate in Business Analysis, and be listed on the IIBA website. Details here: http://www.iiba.org/Certification-Recognition/recognition-programs/Academic-Certificate.aspx. Benefits of certification and personal IIBA membership will be discussed during the semester.

Inclusive Learning

Students are urged to discuss privately any impairment-related requirements face-to-face and/or in written form with the course convenor/lecturer and/or tutor.

Student Feedback

Student feedback is important to us and has been used to improve the course from semester to semester. This semester you may be asked to complete evaluations on the teaching of the course. Please note that you do not have to wait until these evaluations are conducted in order to provide feedback. If there is something that you think we could improve then please let us know.