

INFO360-11S2

College of Business and Economics



COURSE OUTLINE

Special Topic: Business Process Management

Semester Two
Department of Accountancy & Information Systems

Course Supervisor

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1. COURSE OBJECTIVES

In this course students will be introduced to key concepts and approaches to business process management and improvement. The main focus of this course is both understanding and designing business processes. Students will learn how to identify, document, model, assess, and improve core business processes. Students will be introduced to process design principles. The way in which information technology can be used to manage, transform, and improve business processes is discussed. Students will be exposed to challenges and approaches to organizational change, outsourcing, and inter-organizational processes. Upon completion of this course students will be able to assess the efficiency and effectiveness of an organization from a process perspective, conduct process improvement projects, and determine the role of technology in supporting corporate processes.

We expect students to demonstrate their understanding of this knowledge in a number of ways, illustrated by the following learning outcomes:

- To understand and explain business process management (BPM) frameworks
- To discuss potential application areas of process modelling
- To understand the challenges of business process change
- To discuss the challenges concerning the implementation of BPM
- To model business processes using different approaches to business process modelling, i.e. BPML and EPC
- To simulate simple business processes
- To assess business processes performance
- To design business process improvements
- To discuss the main concepts behind business process integration
- To understand how business processes can be automated by WfMS and ERP systems
- To discuss challenges while implementing process-oriented IS, such as ERP systems

To achieve these objectives, the course will provide a blend between theories, concepts and practice. It builds on Stage II information systems papers and provides sufficient theoretical background for advanced (Honours and Masters) study in IS. The course complements INFO303 (Management of Information Systems & Technology), INFO313 (IS Project Management) and INFO333 (e-Business: Design, Management and Security), and other courses offered by ACIS, COSC and MGMT.

2. COURSE REQUIREMENTS

The delivery of content is divided in three segments, i.e., formal lectures (two hours), practical lab & discussion tutorials (one hour), and assessments in the form of a group assignment, a mid-term test and a final examination. The lecture-accompanying practical tutorials are used to apply the theoretical and methodological concepts learned in the lectures to actual process modelling scenarios and cases, thereby reinforcing acquired theoretical knowledge through practical

application. The tutorials are held weekly in computer labs equipped with relevant process modelling and management tools, including modelling tools such as Microsoft Visio, Oryx, and process simulation and execution environments (YAWL).

Tools

Microsoft Visio, ARIS Express, Signavio/Oryx BPM Modeler (Web-based BPM Platform, YAWL process execution and simulation), IBM Innov8 2.0 BPM Platform

Assessment

INFO360 students are evaluated on the following basis:

Group assignment:	30%
Mid-term lab test:	20%
Examination:	50%

More details about these items of coursework will be provided on Learn.

3. TEACHING ARRANGEMENTS

- A. *Classes* are scheduled on Tuesdays, 10-12am (see CIS for venues). The course starts 12.07.2011
- B. *Lab & Discussion Tutorials*. The tutorials are held weekly in computer labs equipped with relevant process modelling and management tools or in regular seminar rooms in the case of discussion tutorials. Dates to be confirmed.

4. TEACHING STAFF

Dr Ulrich Remus Room C705, Ph 364 2618, ulrich.remus@canterbury.ac.nz

5. ALL ABOUT ASSESSMENTS, MARKING, AEGROTATS AND (NO) CHEATING

The following link will take you directly to information regarding the above:

www.ACIS.canterbury.ac.nz/courses/acis%20course%20policies.pdf

PLEASE NOTE: This information is relevant to all ACIS Department courses – read carefully and print off a copy for your own reference.

6. CONSULTATION

Students with questions or problems are invited to see the Course Lecturers immediately following a class, or at other times during scheduled Office Hours. Email is an efficient way of making an appointment with staff. Alternatively, messages may be left with a Department Secretary in Room Com 605, or on a staff member's door. An email address and/or a day/evening telephone number should be left to enable return contact.

Class Representatives

A class representative will be selected early in the year. Reps provide a valuable link between the HOD, course supervisors and students. The representatives are expected to facilitate dialogue between the students and the course supervisor on a regular basis. This process should help to isolate and resolve potential concerns. The communications can also be used to provide positive feedback on elements of the course which are going well.

7. Learn

Learn will be used to hold INFO360 lecture material as well as other notes and some readings. Your Canterbury card must be in credit to print files. You can pay at one of the machines in the library.

9. SCHEDULE (as at Nov 2010)

Week	Date	Topic	Subtopics	Tutorial
1.		Introduction	<ul style="list-style-type: none"> • Overview of the course • Overview Business Process Management Lifecycle 	
2.		BPM frameworks	<ul style="list-style-type: none"> • Process architectures • Overview of process modelling tools • Application areas of process modelling 	BPM Game
3.		Process modelling I	<ul style="list-style-type: none"> • Intro to Signavio/Oryx BPM Modeller (Web-based BPM Platform) • Intro to modelling with EPCs 	Lab Tutorial 1
4.		Process modelling II	<ul style="list-style-type: none"> • BPMN level 1 	Lab Tutorial 2
5.		Process modelling III	<ul style="list-style-type: none"> • Enhancing BPMN models – level 2 	Lab Tutorial 3
6.		Process analysis / simulation	<ul style="list-style-type: none"> • Analyse EPC & BPMN models for weaknesses • Simulation • Lab term test (to be confirmed) 	Lab Tutorial 4
Break				
7.		Automating processes	<ul style="list-style-type: none"> • BPMS and workflow • Refine BPMN models with workflow activities • Process Execution with YAWL • Process metrics & mining 	Lab Tutorial 5
8.		Process-oriented Information Systems	<ul style="list-style-type: none"> • Introduction to ERP • ERP and reference processes • ERP Implementation issues related to BPM 	Discussion Tutorial 1
9.		BP integration	<ul style="list-style-type: none"> • Service-orientation • Web services • SOA and BPM • Inter-organisational processes 	Discussion Tutorial 2
10.		BPM & ERP projects	<ul style="list-style-type: none"> • Stage models • Success factors • Process improvement • Poster presentation (group assignment) 	Discussion Tutorial 3
11.		BPM and beyond	<ul style="list-style-type: none"> • BPM maturity • BPM & KM • Controlling, Compliance, Governance 	
12.		Quo Vadis BPM? Course summary	<ul style="list-style-type: none"> • Future outlook • Review of content • Exam preparation 	

The topics and their order are provisional.

9. TEXT AND RECOMMENDED READINGS

There are is no course text book but selected readings (papers and book chapters). Two sets of readings are provided for each week. A first set of essential readings are provided as PDFs on LEARN. The second set of readings are supplementary readings which complement the essential readings. These resources are either in the Central Library, particularly in the short loan collection, or as PDFs on Learn.

Books (selected chapters):

- Harmon P. Business Process Change: A Guide for Business Managers and BPM and Six Sigma Professionals. Burlington: Morgan Kaufmann; 2007. [Link](#)
- Rosemann M, Becker J, Kugeler M. Process Management. Berlin, New York: Springer; 2003. [Link](#)
- vom Brocke, Jan; Rosemann, Michael (Eds.): Handbook on Business Process Management, Part 1, 2, Springer, 2009
- Weske M. Business Process Management. Lexington, KY: Springer; 2007 / 2010. [Link](#)
- Davis, R.: An Introduction to Business Process Modeling with the ARIS design platform: getting started with BPM, (1st ed.) Springer, New York, 2007. London; 2008:1-8. [Link](#)
- Dumas, M.; van der Aalst, W.M.P. and A.H.M. ter Hofstede (eds.): Process-Aware Information Systems. Bridging People and Software Through Process Technology, John Wiley & Sons, Inc., Hoboken, NJ, 2005
- Jeston, John; Nelis, Johan: Business Process Management: Practical Guidelines to Successful Implementations. Butterworth-Heinemann, 2006, 2008. [Link](#)

Selected papers:

- Ami, T., and R. Sommer (2007) "Comparison and Evaluation of Business Process Modelling and Management Tools," International Journal of Services and Standards 3, pp. 249-261.
- Bandara, W., G. G. Gable, and M. Rosemann (2005): Factors and Measures of Business Process Modelling: Model Building Through a Multiple Case Study, European Journal of Information Systems 14, pp. 347-360.
- Becker, J., v. Uthmann, C., zur Muehlen, M., and Rosemann, M.: Identifying the Workflow Potential of Business Processes, 32nd Hawaii International Conference on System Sciences (HICSS 1999), IEEE, Wailea (HI), 1999.
- Davenport, T. H. (2005): The Coming Commoditization of Processes, Harvard Business Review (83)6, pp. 100-108.
- Dumas, M., W. M. P. van der Aalst, and A. H. M. ter Hofstede (2005): Introduction, Process Aware Information Systems: Bridging People and Software Through Process Technology, M. Dumas, W. M. P. van der Aalst, and A. H. M.ter Hofstede, Eds. Hoboken, New Jersey: John Wiley & Sons, pp. 3-20.
- Hammer, Michael: The Process Audit. Harvard Business Review, April 2007, pp. 111-123.
- Klaus, H., Rosemann, M. & Gable, G., 'What is ERP?', *Information Systems Frontiers*, Aug 2000, 2, 2, pp. 141-161. ISSN: 1387-3326.
- Leymann, F., and Roller, D.: Workflow-based applications, IBM Systems Journal (36:1) 1997, pp 102-123.
- Michael Hammer (1990). Reengineering Work: Don't Automate, Obliterate, Harvard Business Review. July 1
- Radulescu, C., H. M. Tan, M. Jayaganesh, W. Bandara, M. zur Muehlen, and S. Lippe (2006): A Framework of Issues in Large Process Modeling Projects, 14th European Conference on Information Systems, Goeteborg, Sweden, 2006, pp. 1594-1605.
- Radulescu, C., Tan, H.-M., Jayaganesh, M., Bandara, W., zur Muehlen, M., and Lippe, S.: A Framework of Issues in Large Process Modeling Projects, Proceedings of the 14th European Conference on Information Systems (ECIS 2006), Göteborg, Sweden, 2006.
- Recker, J. (2010): Opportunities and Constraints: The Current Struggle with BPMN. Business Process Management Journal, Vol. 16, No. 1, pp. 181-201.
- Recker, J., M. Indulska, M. Rosemann, and P. Green (2008): An Exploratory Study of Process Modeling Practice with BPMN, BPMCenter Reports.
- Recker, J., Rosemann, M., Indulska, M., Green, P. (2009): Business Process Modeling: A Comparative Analysis. Journal of the Association for Information Systems, Vol. 10, No. 4, pp. 333-363.
- Hoffman, S.L. (2006). Understanding business process modeling. iSeries News. 2006:16. [Link](#)
- van der Aalst, W. M. P, and A. H. M. ter Hofstede, "YAWL: Yet Another Workflow Language," Information Systems.30, pp. 245-275.
- Bandara, W. Rosemann, M.: (2005) What are the secrets of successful process modelling? Insights from an australian case study. Systèmes d'Information et Management. 2005;10:47. [Link](#)
- zur Muehlen, M. (2004): Organizational Management in Workflow Applications - Issues and Perspectives," Information Technology and Management (5:3) 2004, pp 271-291.
- zur Muehlen, M., and Shapiro, R. (2010) "Business Process Analytics," in: vom Brocke, J.; Rosemann, M. (eds.): Handbook on Business Process Management (Vol. 2), Springer Verlag, Berlin et al., 2010.