MONASH University
Information Technology

FIT2006
Business process modelling and workflow

Unit Guide

Semester 1, 2010

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Table of Contents

FIT2006 Business process modelling and workflow - Semester 1, 2010

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Introduction

Business processes must be designed to ensure that they are effective and meet customer requirements. A well-designed process will improve efficiency and deliver greater productivity. This unit will introduce students to analytical tools that can be used to model, analyse, understand and design business processes. Students will also gain hands-on experience in using simulation software as a tool for analysing business processes.

Unit synopsis

With increased globalisation, companies are facing stiffer competition and successful companies cannot afford to harbour inefficiencies if they are to be competitive. Furthermore, customers are becoming more demanding. Business processes must be designed to ensure that they are effective and meet customer requirements. A well-designed process will improve efficiency and deliver greater productivity.

This unit will survey the analytical tools that can be used to model, analyse, understand and design business processes. Students will also gain hands-on experience in using simulation software as a tool for analysing business processes.

Upon completion of this unit students should have acquired: an understanding of business organisations, their functional structure and the advantage of considering the process oriented view of organisations; a thorough knowledge of business processes, their structure and how processes fit in to the overall organisation objectives; knowledge of the analytical tools that can be used to model, analyse, understand, and design business processes; and skills to use simulation software as a tool for analysing business processes.

Learning outcomes

At the completion of this unit students will have -
A knowledge and understanding of:

- the role of processes in organisations;
- process management lifecycle;
- process modelling and process modelling techniques;
- process simulation techniques;
- workflow and process implementation;
- process measurement and benchmarking;
- popular and leading edge modelling, simulation, workflow and measurement tools.

Developed attitudes that enable them to:

- recognise the value of process orientation within an organisation;
- adopt a critical approach to process design and management in a business context;
- appreciate the value of modelling and simulation as effective process design tools;
- appreciate that a designed business process is not an implemented business process (i.e. appreciate the limitations of process modelling and the necessity of implementation methodologies and techniques);
- appreciate the risks and benefits of the influence of IT infrastructure on process design.

Developed the skills to:

- create process models;

- perform process simulation;
- select an appropriate process design methodology;
- assess process performance;
- analyse appropriateness of process-based KPIs;
- use popular and leading edge modelling, simulation, workflow and measurement tools.

Demonstrated the communication skills necessary to:

- document and communicate a process model;
- work in a team during process design and management;
- communicate during, and coordinate the process management life cycle.

Contact hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Unit relationships

Prerequisites

Completion of 24 points at level 1 from FIT or BusEco

Prohibitions

ETC2490, BUS3502

Teaching and learning method

Teaching approach

Please check Moodle for information on this unit.

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system: http://allocate.its.monash.edu.au/

Unit Schedule

Week	Date*	Topic	References/Readings	Key dates
1	01/03/10	Introduction to Business Processes and Process Modelling	Prescribed text (M. Laguna and J. Marklund, Business Process Modeling, Simulation, and Design, Prentice Hall, 2005), chapter 1	
2	08/03/10	Business Process Re-engineering and Six Sigma Process management		
3	15/03/10	Process management		
4	22/03/10	Process Modeling 1		
5	29/03/10	Process Modeling 2		
Mid semester break				
6	12/04/10	Guest Lecture		Assignment 1 due 16/04/10
7	19/04/10	Queuing and Statistics		
8	26/04/10	Extend as a Process Simulation Tool		
9	03/05/10	Business Process Simulation 1		
10	10/05/10	Business Process Simulation 2		
11	17/05/10	Interpreting Simulation Outcomes		
12	24/05/10	Optimizing Process Performance		Assignment 2 due 21/5/10
13	31/05/10	Revision		

*Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

Improvements to this unit

ExtendSim Version 7 license obtained for this unit.

More practical tutorials introduced.

An additional lecture on process performance introduced - taking out some queuing theory (which will be covered in another subject)

Unit Resources

Prescribed text(s) and readings

Laguna, M., Marklund, J. (2005), Business ProcessModeling, Simulation and Design, Pearson Prentice Hall.

Text books are available from the Monash University Book Shops.Availability from other suppliers cannot be assured. The Bookshoporders texts in specifically for this unit. You are advised to purchaseyour text book early.

Recommended text(s) and readings

Required software and/or hardware

ExtendSim

Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **n** hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises;

Weekly tutorial or laboratory tasks and exercises with sample solutions provided one to two weeks later;

Assignment specifications and sample solutions;

A sample examination and suggested solutions;

This Unit Guide outlining the administrative information for the unit;

The unit web site on Moodle, where resources outlined above will be made available.

Assessment

Overview

Examination (2 hours): 70%; In-semester assessment: 30%

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 50% then a mark of no greater than 49-N will be recorded for the unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
  Assignment 1 - Process Modelling
  Description:
  Weighting:
  15%
  Due date:
  Week 6

- **Assignment task 2**

  Title:
  Assignment 2 - Process Simulation
  Description:
  Weighting:
  15%
  Due date:
  Week 12

Examination

- **Weighting:** 70%
  Length: 2 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Assignments received after the due date will be subject to a penalty 5% per day including weekends. Assignments received later than one week (seven days) after the due date will not normally be accepted.

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams