MONASH University

FIT5160
Business process modelling, design and simulation

Unit guide

Semester 1, 2009

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FIT5160 Business process modelling, design and simulation - Semester 1, 2009

Unit leader :

Yen Cheung

Lecturer(s) :

Clayton

- Yen Cheung

Tutors(s) :

Clayton

- Peter Huynh

Introduction

Welcome to FIT5160 Business Process Modelling, Design and Simulation for Semester 1, 2009. This 6 point unit is a core unit in the Business Systems professional track for the MBIS, MBusSys and MIMS degrees, and an elective unit for others studying these degrees and other postgraduate courses with the Faculty of IT.The unit has been designed to provide you with an understanding of analytical techniques and tools that can be used to model, analyse, understand and design business processes. You will also gain hands-on experience in using software tools for modelling and analysing business processes.

Unit synopsis

ASCED code 020399 IS not elsewhere classified.

The unit will cover the following topics:

- Introduction to business organizations;
- Introduction to business processes;
- Introduction to business process management;
- Tools for process analysis and design;
- Managing process flows;
- Introduction to statistical modelling and queuing;
- Business process simulation;
- Analysing process input and output;
- Optimising process performance.

Learning outcomes

At the completion of FIT5160 students will:

(1) Have a thorough understanding of business organizations, their functional structure and the process oriented view of organizations;

(2) Demonstrate a thorough knowledge of business processes, their structure and how processes fit in to the overall organization objectives;

(3) Be able to use analytical tools for modeling, analyzing, understanding and designing business processes;

(4) Have acquired skills to use simulation software as a tool for analyzing business processes;

(5) Be able to advise management on business process design and re-engineering issues.

Workload

For on campus students, workload commitments are:

- two-hour lecture;
- two-hour tutorial in a laboratory;
- a minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed FIT9003 and FIT9004 the core units of the postgraduate degrees or equivalent.

Relationships

FIT5160 is a core unit in the Business Systems professional track for the MBIS, MBusSys and MIMS degrees, and an elective unit for others studying these degrees and other postgraduate courses with the Faculty of IT.

You may not study this unit if you have completed BUS3502, FIT2006 or BUS5502 in your degree.

Continuous improvement

Monash is committed to ‘Excellence in education’ (Monash Directions 2025 - http://www.monash.edu.au/about/monash-directions/directions.html) and strives for the highest possible quality in teaching and learning.

To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. The University’s Unit Evaluation policy (http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html) requires that every unit offered is evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to “have their say”. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Faculties have the option of administering the Unit Evaluation survey online through the my.monash portal or in class. Lecturers will inform students of the method being used for this unit towards the end of the semester.

Student Evaluations

If you wish to view how previous students rated this unit, please go to
http://www.adm.monash.edu.au/cheq/evaluations/unit-evaluations/

Unit staff - contact details

Unit leader

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Contact hours : Lecture: Friday 11-1pm, Consultation: Wed 10-12

Lecturer(s) :

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Tutor(s) :

Mr Peter Huynh

Additional communication information

Tutor:

Peter Huynh

Email: bstutat@infotech.monash.edu.au

Teaching and learning method

The teaching and learning in the unit is structured in the traditional manner around lectures and laboratory-based workshops. Most of the lecture and tutorial material is strongly supported by the prescribed text for the unit, it is very important that you get a copy of the text. Each week there is reading set from the text, you will find the unit isn't too difficult if you study consistently through the semester and keep up with the lectures, tutorials, readings, tutorial exercises and assigned work.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are intensive, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Your learning is also supported by web-based resources including a Moodle-based web site. All your unit resources

are available at this site.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Topic	Study guide	Key dates
1	Introduction to Business Process Design	Chapter 1 of Prescribed Text	6 March
2	Process Management and Process Oriented Improvement Programs	Chapter 2 of Prescribed Text	13 March
3	Simulating Business Process Design	Chapter 3 of Prescribed Text	20 March
4	Tools for Process Analysis and Design	Chapter 4 of Prescribed Text	27 March
5	Managing Process Flows	Chapter 5 of Prescribed Text	3 April
6	Introduction to Statistical modelling and Queuing	Chapter 6 of Prescribed Text	24 April
Mid semester break			
7	Business Process Simulation 1	Chapter 6 of Prescribed Text plus lecture materials	1 May
8	Business Process Simulation 2	Chapter 7 of Prescribed Text	8 May
9	Business Process Simulation 3	Chapter 8 of Prescribed Text and lecture materials	Date to be confirmed due to Good Friday Holiday
10	Analyzing Process Input	Chapter 9 of Prescribed Text	15 May
11	Analyzing Process Output	Chapter 9 of Prescribed Text	22 May
12	Optimizing Process Performance	Chapter 10 of Prescribed Text	29 May
13	Revision	Lecture Materials	5 June

Unit Resources

Prescribed text(s) and readings

Prescribed Text: Laguna, M., Marklund, J. (2005), Business Process Modeling, Simulation and Design, Pearson Prentice Hall.

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

Recommended text(s) and readings

Recommended Texts:

1. Weske, M. (2007) Business Process Management: Concepts, Languages and Architectures, Springer
2. Reijers, H.A. (2003) Design and Control of Workflow Processes, Springer

Required software and/or hardware

The simulation software, Extend which accompanies the prescribed text.

Equipment and consumables required or provided

Students will need access to:

* a personal computer with Windows XP
* the internet via dial-up connection or preferably by broadband
* a printer for assignments

On-campus students 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.

Study resources

Study resources we will provide for your study are:

The following are available from the unit website (Moodle):

- Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises
- Weekly tutorial or laboratory tasks and exercises
- Assignment specifications
- A sample examination
- This Unit Guide outlining the administrative information for the unit

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to http://www.lib.monash.edu.au.

The Educational Library and Media Resources (LMR) is also a very resourceful place to visit at http://www.education.monash.edu.au/library/

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (http://moodle.monash.edu.au) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

You can contact the MUSO Support by phone : (+61 3) 9903 1268

For further contact information including operational hours, please visit:
http://www.monash.edu.au/muso/support/students/contact.html

Further information can be obtained from the MUSO support site:
http://www.monash.edu.au/muso/support/index.html

Assessment

Unit assessment policy

To pass this unit, 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

Ifa student does not achieve 40% or more in the unit examination or theunit non-examination assessment then a mark of no greater than 44-Nwill be recorded for the unit.

Assignment tasks

- **Assignment Task**

  Title : Tutorial Exercises assigned each week

  Description :

  A maximum of 10% is awarded for all the 12 weekly tutorials that are submitted.
  Weighting : 10%

  Criteria for assessment :

  Tutorials in the unit are fully described, along with the assessment criteria on the tutorial page of the Moodle-based unit web site
  Due date : One week after each tutorial
- **Assignment Task**

  Title : Assignment : Modelling and Simulation with Extend

  Description :

  This is a group assignment involving the design and simulation of a system using the techniques and tools of the unit content.
  Weighting : 20%

  Criteria for assessment :

  Assignment work in the unit is fully described, along with the assessment criteria, on the assignment page of the Moodle-based unit web site. A peer assessment form is also completed by all students to ensure fair distribution of marks.
  Due date : 1st June, 4pm

Examinations

- **Examination 1**

  Weighting : 70%

  Length : 3 hours

  Type (open/closed book) : Closed book

Assignment submission

All assignments will be submitted electronically via the Moodle-based unit web site.

Assignment coversheets

Electronic coversheets are to be submitted with your assignment. These can be obtained via the "Student assignment coversheets" (http://infotech.monash.edu.au/resources/student/assignments/) page on the faculty website

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

If you believe that your assignment will be delayed because of circumstances beyond your control such as illness you should apply for an extension before the due date. Medical certificates or certification supporting your application may be required. Assignments submitted after the due date may incur a penalty for lateness. An assignment submitted more than seven days after the due date may be given a score of zero. If you anticipate being late then discuss the situation with your unit lecturer as early as possible; your unit lecturer will decide how many marks you will be penalised for each day your assignment is late, and whether or not any extension is warranted.

Late assignment

Assignments received after the due date will be subject to a penalty of 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.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at http://www.policy.monash.edu/policy-bank/academic/education/assessment/

We will aim to have assignment results made available to you within two weeks after assignment receipt. All assignment feedback will be provided on-line using the Moodle-based unit web site.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with the University Plagiarism policy and procedure (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) which applies to students detected plagiarising.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.