MONASH University
Information Technology

FIT3068
Systems integration

Unit Guide

Semester 1, 2010

Last updated: 18 Feb 2010

Table of Contents

FIT3068 Systems integration - Semester 1, 2010

Chief Examiner:

Ms Susan Foster
Lecturer
Phone: +61 3 990 32404
Fax: +61 3 990 31077

Contact hours: - TBA

Lecturer(s) / Leader(s):

Caulfield

Ms Susan Foster
Lecturer
Phone: +61 3 990 32404
Fax: +61 3 990 31077

Contact hours: TBA

Introduction

Welcome to FIT3068, System Integration. This is a 6 point unit and is a core unit in the BITS Information system major. This unit has been designed to provide you with an understanding of enterprise systems. It will define Enterprise System scale (ERP) packages as the main business information system in the portfolio of large organisations. SAP ERP 6 system will be used to demonstrate a fully integrated example of a system that is currently used in industry. The unit will examine the forms and mechanisms of business process integration and of data integration within the Enterprise System package, and between the Enterprise System and other business information systems and databases. The unit will introduce the different types of integration associated with various types of middleware software. The unit will address the role of middleware in the specification and implementation of business process workflow systems in both the homogenous environment of an Enterprise System package and in heterogenous software environments.

Unit synopsis

This unit provides an understanding of the portfolio of information systems needed to support a large organisation, based on ERP packages as the principal business information system in large organisations. It examines the forms and mechanisms of business process integration and data integration between the Enterprise System and other business information systems, including legacy systems and office systems. It introduces students to the concept of workflow and to selected software tools for process modelling and workflow design, and to the different types of integration software (middleware) and technologies that enable business process integration through workflow automation.

Learning outcomes

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

- the evolution and current application of Enterprise Systems;
- the scale and complexity issues associated with Enterprise Systems;
- the concepts of integrated data and processing across different business processes;
- the business and technological benefits of such integration;
- the limitations and constraints that accompany the above benfits;
- the differences in structure between enterprise scale and personal scale information; systems

Developed attitudes that enable them to:

- develop attitudes which enable the setting of reasonable expectations for ES performance;
- acknowledge and value the perspectives of business, IT and managerial users;
- maintain the highest ethical and professional standards in the evaluation, analysis, recommendation and implementation of integrated solutions.

Developed the skills to:

- design appropriate workflow solutions for common business processes;
- develop facility in the use of a mainstream process modelling and integration software product.

Demonstrated the communication and teamwork skills necessary to:

- work as part of a professional team in evaluating and recommending IT solutions to identified business situations;

- be able to communicate ES related concepts and issues to business clients, managers, IT peers and business partners.

Contact hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

For on campus students, workload commitments are:

- two-hour lecture and
- 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

12 credit points of level 2 FIT units completed or simultaneously enrolled

Prohibitions

IMS5052

Teaching and learning method

Teaching approach

A combination of lecture and related laboratory work will link together and provide the basis for this unit.

Lectures will include webcasts, guest speakers from industry appropriate discussion topics that relate to enterprise system integration. Assignments will support the learning of these issues.

Tutorials:

Students will use SAP to understand enterprise system integration issues. Students are required to have hands on experience in sap and appropriate process modelling tools.

Students will also be involved in tutorial discussions about topical issues that relate to enterprise systems.

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	Key dates
1	01/03/10	Introduction to information systems	
2	08/03/10	Enterprise Information systems in organisations - ERP perspective	8 March - Assignment 1 handed out
3	15/03/10	The challenge of integration	
4	22/03/10	Business process 1	
5	29/03/10	Business process 2	
Mid semester break			
6	12/04/10	System integration - Technology	12 April - Assignment 1 Due in
7	19/04/10	system integration - enterprise systems using SOA and seb serivces	Assignment 2 handed out
8	26/04/10	System and data integration	
9	03/05/10	System integration - Business intelligence	
10	10/05/10	System and people integration	
11	17/05/10	Organisational change strategies	17 May -

			Assignment 2 due in
12	24/05/10	Future issues and trends	
13	31/05/10	Review	

*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

The assignments are linked to the learning outcomes in this unit, as such students are required to have a good understanding of theory. As a requirement students are expected to research issues that are pertinent to each assignment to demonstrate their understanding.

A Monquest evaluation will be given out in the second half of semester 1.

Unit Resources

Prescribed text(s) and readings

There are no prescribed texts for this unit. Students will be given recommended readings that are pertinent to the topic they are studying each week. Below are a list of recommended texts and readings that students may find helpful in preparing for lectures and tutorials and assignments.

Students are expected to find appropriate references for the various topics discussed in the lectures and assignments using the facilities provided by the Monash University Libraries.

Recommended text(s) and readings

Britton & Bye (2004) "IT Architectures and Middleware". 2e. Addison-Wesley.Hohpe & Woolf (2004) "Enterprise Integration Patterns". Addison-Wesley.Monk, E.F. and Wagner, B.J. (2006) "Concepts in Enterprise Resource Planning". 2e. Thomson Course Technology.Sandoe, K., Corbitt, G., & Boykin, R. (2001). Enterprise Integration. Wiley & Sons: New York.O'Rourke, Fishman & Selkow (2003) "Enterprise Architecture: Using the Zachman Framework". Thomson Course Technology.

Required software and/or hardware

On campus students will have access to software that they require for this unit, which is installed in the computing labs. This will include: SAP ERP 6 and ARIS modelling tool 6.0.

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 time each 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 are provided on line and as handouts in the lectures;
- Weekly tutorial or laboratory tasks and exercises are provided on line
- Assignment specifications
- A sample examination
- Discussion groups
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on MUSO, where resources outlined above will be made available.

Assessment

Overview

Examination (2 hours): 60%; In-semester assessment: 40%

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.

This unit is assessed with two assignments and a two hour final formal supervised assessment.

The following are examples that detail how the policy works:

Example 1:
Student A
Assignment 1 - 15 marks out of 20
Assignment 2 - 17 marks out of 20
Exam - 20 marks out of 60

To pass the hurdle requirements set by the above Faculty policy the student would need:
- at least 16 marks out of the 40 available marks for the assignments (student has received 32 marks)
- at least 24 marks out of the 60 available marks for the exam (student has received 20 marks - has not met the hurdle requirement)
- at least 50 marks overall (student has received 52 marks overall)

Because the student has not met the Exam hurdle and their overall mark is 52 P their overall mark will be downgraded to 49 N.

Example 2:
Student B
Assignment 1 - 9 marks out of 20
Assignment 2 - 7 marks out of 20
Exam - 24 marks out of 60

To pass the hurdle requirements set by the above Faculty policy the student would need:
- at least 16 marks out of the 40 available marks for the assignments (student has received 16 marks)
- at least 24 marks out of the 60 available marks for the exam (student has received 24 marks)
- at least 50 marks overall (student has received 40 marks overall)

Because the student has not met the overall unit mark of 50%, they will fail the unit. Their overall mark is 40 N and this will be recorded as their overall mark 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: Automating Business Processes
  Description:
  Weighting:
  20%
  Due date:
  Monday 12 April
  Remarks:
  Students will be required to work in groups of two to develop a workflow diagram, procedure manual and an integration solution to reflect processes and integration issues identified in a case study

- **Assignment task 2**

  Title:
  Assignment 2: Challenges facing organisation when implementing enterprise systems
  Description:
  Students will be required to produce a well written literature review which identifies the major challenges organisations face when implementing an enterprise system: This should include technical, process, information and people related issues. This paper will require research to be conducted and a reference list to be provided to support their review outcomes.
  Weighting:
  20%
  Due date:
  Monday 17 May
  Remarks:
  Students are provided with marking criteria for each assignment. A more detailed marking guide will be used by tutors when the assignment is finally marked. This marking guide will be completed and handed back with each marked assignment.

Examination

- **Weighting:** 60%
  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.

Late assignments submitted without an approved extension may be accepted (*up to one week late*) at the discretion of your lecturer, but will be penalised at the rate of 10% of total assignment marks per day (including weekends). *Example*:

Total marks available for the assignment = 100 marks

Marks received for the assignment = 70 marks

Marks deducted for 2 days late submission (20% of 100) = 20 marks

Final mark received for assignment = 50 marks

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