ISYS301

Enterprise Systems Integration

S2 Day 2015

Dept of Computing

Contents

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General Information

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Credit points
3

Prerequisites
39cp including [(ISYS254(P) or COMP255(P) or ISYS227(P) or COMP227(P)) and (6cp(P) in COMP or ISYS or ACCG or STAT or BUS or BBA units at 200 level)]

Corequisites

Co-badged status
ITEC601

Unit description
This unit aims to provide an understanding of how information systems can be integrated into the overall business layer of an organisation. The unit focuses on methods and techniques to enhance the alignment of information systems with business strategy, objectives and processes. Issues covered include: process modelling, corporate modelling, workflow modelling, business process re-engineering, enterprise resource planning, business-to-business integration and supply chain management. Various technical approaches to tackling integration problems are discussed.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

Ability to acquire knowledge needed integrate new systems and processes of an organisation

Competence in IT strategic planning.

Ability to use various modelling techniques to describe information flows and processes in an organisation.

Competence in XML (eXtensible Markup Language) to web enable business applications.

Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Assessment Tasks

Name	Weighting	Due
Assignment 1	5%	24 August 2015
Assignment 2	20%	11 September 2015
Group Project Brief	5%	2nd October 2015
Assignment 3	15%	23rd October 2015
Group presentation	5%	Week 12
Exam	50%	9-27th November 2015

Assignment 1

Due: **24 August 2015**
Weighting: **5%**

A report on eBusiness principles

On successful completion you will be able to:
- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Competence in IT strategic planning.

Assignment 2

Due: **11 September 2015**
Weighting: **20%**

Business Process Modelling

On successful completion you will be able to:
- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Competence in IT strategic planning.
- Ability to use various modelling techniques to describe information flows and processes in an organisation.

Group Project Brief

Due: **2nd October 2015**
Weighting: **5%**

Provide a description of the project and the role of each team member with some explanation.

This will be marked *individually*.

On successful completion you will be able to:
- Ability to use various modelling techniques to describe information flows and processes in an organisation.

Assignment 3

Due: **23rd October 2015**
Weighting: **15%**

Group assignment implementing eBusiness solution. These will be peer moderated and marks

assigned individually within the group. Groups will be self-selecting. If individuals have not allocated themselves to a group within a set time, people will be allocated to a group by the lecturer.

On successful completion you will be able to:
- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Group presentation

Due: **Week 12**
Weighting: **5%**

Group presentation, but each team member will be marked *individually*.

On successful completion you will be able to:
- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Exam

Due: **9-27th November 2015**
Weighting: **50%**

Closed book exam

On successful completion you will be able to:
- Ability to acquire knowledge needed integrate new systems and processes of an organisation

- Competence in IT strategic planning.
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Delivery and Resources

CLASSES

Each week you should attend three hours of lectures. The third hour of lecture on the Wednesday will be a tutorial. There will also be a a one-hour practical class, although not every week and some practical times more in the second half of semester will be free for you to undertake your group assignment.

For details of days, times and rooms consult the timetables webpage.

Note that the practical classes commence in week 2.

You should have selected a practical class enrollment. It will not particularly matter if you do not attend the practical you are enrolled in as practical attendance is not compulsory, but should be useful to you. If you do not have a class, or if you wish to change one, you should see the enrollment operators in the E7B courtyard during the first two weeks of the semester. Thereafter you should go to the Student Centre.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Textbook

The textbook for ISYS301 used this semester is:

- Papazoglou, M., Ribbers, P., (2006) *e-Business: Organizational and Technical Foundations* John Wiley & Sons Ltd. Chichester West Sussex U.K. There is also a companion website by the publisher at www.wiley.com. This site contains links to example material and more.

There are another couple of books you may wish to acquire, these are not compulsory but helpful.

- Chaffey, D., (2015) *Digital Business and E-Commerce Management: Strategy, Implementation and Practice* 6th Ed. Pearson Harlow U.K.
- Papazoglou, M., (2012) *Web Services & SOA: Principles and Technology* 2nd Ed. Pearson Harlow U.K.

The following are 'weekly readings' which simply support your learning, should you be interested in the topic and wish to read further. Of course they help with assignments as well!

- Australian Government (2015) *eBusiness versus eCommerce* Australian Trade Commission URL: https://www.austrade.gov.au/e-business-versus-e-commerce/default.aspx (accessed 14/7/2015).

- Bernstein, P., Haas, L., (2008) "Information integration in the enterprise" *Communications of the ACM* 51(9) September pp: 72-79.

- Cherif, E., Grant, D., (2014) "Analysis of e-business models in real estate" *Electronic Commerce Research* 14(1) pp: 25-50.

- Cimino, A., Costantino, F., Di Gravio, G., Longo, F., (2009) "Reverse logistics of refillable glass bottles: a simulative approach" *SpringSim '09* March pp: 1-6.

- Clavreul, M., Barais, O., Jézéquel, F., (2010) " Integrating legacy systems with MDE" *ICSE '10* May pp: 69-78.

- Eckhardt, A., Rosenkranz, C., (2010) "Lost in translation?!: the need for a boundary spanner between business and it" *SIGMIS-CPR* '10 May pp: 75-82.

- Heart, T., (2010) "Who is out there?: exploring the effects of trust and perceived risk on saas adoption intentions" *SIGMIS Database* 41(3) August pp: 49-68.

- Hermida, J., Meliá, S., Montoyo, A., Gómez, J., (2013) "Applying model-driven engineering to the development of Rich Internet Applications for Business Intelligence" *Information Systems Frontiers* 15(3) pp: 411-431.

- Huemer, C., Liegl, P., Motal, T., Schuster, R., Zapletal, M., (2008) "The development process of the UN/CEFACT modeling methodology" *ICEC '08* August pp: 1-10.

- Iizuka, K., Iizuka, Y., Suematsu, C., (2013) "E-Business Process Modeling Issues: From the Viewpoint of Inter-organizational Process Efficiency and Information Sharing" *Procedia Computer Science* Vol. 22 pp: 820-827.

- Ionita, A., Catapano, A., Giuroiu, S., Florea, M., (2008) Service oriented system for business cooperation" *SDSOA '08* May pp: 13-18.

- Jacobs, A., Nakata, K., (2010) "Evolving the social business: a look at stages of growth for Web 2.0 integration with business activities" *IWCSC '10* September pp: 1-6.

- Janita, I., Chong, W., (2013) "Barriers of B2B e-Business Adoption in Indonesian SMEs: A Literature Analysis" *Procedia Computer Science* Vol 17 pp: 571-578.

- Jiang, K., Winer, C., (2009) "Introducing an application integration course in IT curriculum" *SIGITE '09* October pp: 33-36.

- Kabak, Y., Dogac, A., (2010) "A survey and analysis of electronic business document standards" *Computing Surveys* 42(3) March pp: 11(1)-11(31).

- Kalbande, D., Thampi, G., Deotale, N., (2011) "e-procurement for increasing business process agility" *ICWET '11* February pp: 761-764.

- Khoo, B., (2010) " RFID- from Tracking to the Internet of Things: A Review of Developments" *GREENCOM-CPSCOM '10* December pp: 533-538.

- Ko, R., (2009) "A computer scientist's introductory guide to business process management (BPM)" *Crossroads* 15(4) June pp: 11-18.

- Lai, J., Kan, C., Ulhas, K., (2013) "Impacts of employee participation and trust on e-business readiness, benefits, and satisfaction" *Information Systems and e-Business Management* 11(2) pp: 265-285.

- Margaria, T., Steffen, B., (2007) "Middleware: just another level for orchestration" *MNCNA '07* November pp: 1-6.

- Mili, H., Guy Tremblay, G., Jaoude, G., Lefebvre, E., Elabed, L., Boussaidi, G., (2010) "Business process modeling languages: Sorting through the alphabet soup" *Computing Surveys* 43(1) November pp: 4(1)-4(56).

- Nitu (2009) "Configurability in SaaS (software as a service) applications" *ISEC '09* February pp: 19-26.

- Norta, A., (2011) "A choreography language for eBusiness collaboration" *SAC '11* March pp: 468-469.

- Paradies, M., Malaika, S., Nicola, M., Xie, K., (2010) " Comparing XML processing performance in middleware and database: a case study" *Middleware Industrial Track '10* November pp: 35-39.

- Pihir, I., (2013) *Challenges of Measuring the Direct Effects of e-Business in SMEs* Research Paper 10.2478/rput-2013-0023 Volume 21, Special Number Faculty of Materials Science and Technology in Trnava Slovak University of Technology in Bratislava pp: 137-144.

- Pryss, R., Mundbrod, N., Langer, D., Reichert, M., (2015) "Supporting medical ward rounds through mobile task and process management" *Information Systems and e-Business Management* 13(1) pp: 107-146.

- Rajam, S., Cortez, R., Vazhenin, A., Bhalla, S., (2010) "Design patterns in enterprise application integration for e-learning arena" *HC '10* December pp: 81-88.

- Ramesh, J., Singh, S., Sharma, M., (2011) " Development of private cloud for educational institution using Aneka grid container" ICWET '11 February pp: 244-247.

- Rebstock, M., (2009) " Technical opinion: Semantic ambiguity: Babylon, Rosetta or beyond?" *Communications of the ACM* 52(5) May pp: 145-146.

- Rech, J., Schwach, W., Dietrich, M., Stuhec, G., (2010) "Intelligent assistance for

collaborative schema governance in the German agricultural eBusiness sector" *iiWAS '10* November pp: 867-870.

- Samavi, R., Yu, E., Topaloglou, T., (2008) "Applying strategic business modeling to understand disruptive innovation" *ICEC '08* August pp: 1-10.

- Sánchez Ramón, O., Sánchez Cuadrado, J., García Molina, J., (2010) " Model-driven reverse engineering of legacy graphical user interfaces" *ASE '10* September pp: 147-150.

- Shahzad, K., Johannesson, P., (2009) " An evaluation of process warehousing approaches for business process analysis" *EOMAS '09* June pp: 1-14.

- Sindhgatta, R., Sengupta, B., (2009) " An extensible framework for tracing model evolution in SOA solution design" *OOPSLA '09* Otober 2009 pp: 647-658.

- Veit, D., Clemons, E., Benlian, A., Buxmann, P., Hess, T., Spann, M., Kundisch, D., Leimeister, J., Loos, P., (2014) "Business Models: An Information Systems Research Agenda" *Business & Information Systems Engineering* 6(1) pp: 45-53.

- Zarvić, N., Wieringa, R., van Eck, P., (2008) "Checking the alignment of value-based business models and IT functionality" *SAC '08* March pp: 607-613.

- Zhou, L., Xie, Y., Wild, N., Hunt, C., (2008) " Learning and practising supply chain management strategies from a business simulation game: a comprehensive supply chain simulation" *WSC '08* December pp: 2534-2542.

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

echo360

Digital recordings of lectures are available. Read instructions here.

Technology

Technology used will include IBM BP Modeller, Adonis etc. Students are also expected to make use of MS Word, MS Excel and MS Powerpoint and editing software to undertake XML and BPEL.

Discussion Boards

When groups are allocated for the group assignment. Students will have the opportunity to discuss issues amongst their groups on iLearn.

Unit Schedule

1 **(Peter)** Week starts 27/7	**World of eBusiness** **eBusiness strategy** - What is eBusiness strategy - Strategic positioning - Level of eBusiness strategy - Strategic alignment	No tutorial	No practical	Papazoglou and Ribbers chapters 1, 2	Australian Government (2015) Janita and Chong (2013) Lai, Kan and Ulhas (2013) Pihir (2013) Kabak and Dogac (2010) Eckhardt and Rosenkranz (2010) Jacobs and Nakata (2010)
2 **(Peter)** 3/8	**Business models** - Pressures forcing business changes - Classifications of business models **eBusiness Relationships**	Background to eBusiness eBusiness strategy	Introduction to modelling	Papazoglou and Ribbers chapter 3, 4	Cherif and Grant (2014) Hermida *et al.,* (2013) Iizuka, Iizuka and Suematsu (2013) Pryss et al., (2015) Veit *et al.,* (2014) Sindhgatta and Sengupta (2009) Zarvić, Wieringa and van Eck (2008) Rech et al., (2010)
3 **(Peter)** 10/8	**Governance Structures** **Business process modeling** - Business process modelling methodologies - Supply chain operations reference (SCOR) model - Model driven architecture (MDA) - Business process modelling notation (BPMN)	eBusiness models eBusiness relationships	Assignment preparation	Papazoglou and Ribbers chapter 5, 12	Ko (2009) Ionita et al., (2008) Shahzad and Johannesson (2009)
4 **Professionals Australia, (formerly APESMA)** 17/8	Guest lecture by Professionals Australia ([http://www.professionals australia.org.au/](http://www.professionalsaustralia.org.au/)) on Tuesday 9-10am	No third lecture this week on Wednesday	Modelling exercise		Mili *et al.*, (2010) Kalbande, Thampi and Deotale (2011)

5 (Peter) 24/8	**Recorded lecture on Knowledge Management**	Governance models and Business process modelling	Assignment preparation **Assignment 1 (5%) due 24/8**	KM Slides (Busch)	Khoo (2010) Cimino *et al.,* (2009) Zhou *et al.,* (2008)
6 (Peter) 31/8	**eBusiness Technological Infrastructure**	KM	Introduction to XML	Papazoglou and Ribbers chapter 6	Norta (2011) Samavi, Yu and Topaloglou (2008)
7 (Peter) 7/9	**XML** **EDI and Middleware** - EDI concepts and standards - Middleware concepts, architecture and systems	Technological infrastructure	XML **Assignment 2 (20%) due 11th September**	Papazoglou and Ribbers chapters 7, 14	
Mid Semester Break: 12-27th September inclusive					
8 (Oldooz) **28/9**	**Loosely coupled eBusiness solutions** - Concept of software as a service - Web services - Web service architecture	XML, EDI and Middleware	XML, Middleware **Group project brief (5%) due 2nd October**	Papazoglou and Ribbers chapter 19	Ramesh, Singh and Sharma (2011) Heart (2010) Nitu (2009)
9 (Oldooz) 6/10	**Workflow systems** - Workflow concepts - Workflow elements - Workflow modeling - Workflow verification	eBusiness solutions	Business solutions, Workflow systems	Papazoglou and Ribbers chapters 18	Margaria and Steffen (2007) Paradies et al. (2010)
10 (Oldooz) 12/10	**Enterprise Application Integration (EAI)** - Concepts - Technologies	Legacy systems	Assignment work	Papazoglou and Ribbers chapter 17	Rajam et al., (2010) Jiang and Winer (2009) Bernstein and Haas (2008)
11 (Oldooz) 19/10	**Leverage legacy applications**	Workflow systems	**Group assignment (15%) due 30th October**	Papazoglou and Ribbers chapter 16	Clavreul, Barais and Jézéquel, (2010) Sánchez Ramón, Sánchez Cuadrado, and García Molina (2010)

12 (Oldooz) 26/10	**Business protocols** **-** Why are business protocols and standards needed - XML technology stack for eBusiness integration - RosettaNet - Electonic business XML	eBusiness solutions	**Group Presentations (5%)**	Papazoglou and Ribbers chapter 20	Rebstock (2009)	
13 (Peter/Oldooz) 2/11	**Revision for the exam**	Business protocols	No practical			

Learning and Teaching Activities

Lectures 1 and 2

Covers lecture material every week

Lecture 3

Covers tutorial material every week

Practical

Covers practical components of the course in the computer labs

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Late Assignment Submission policy: Late work will be accepted with a penalty of 10% of the marks for the assignment per day submitted late. Hence, an assignment submitted five days late will get at most half the marks. If you cannot submit on time because of illness or other circumstances, please contact the lecturer **before** the due date.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

- Competence in IT strategic planning.

Assessment tasks

- Assignment 1
- Assignment 2
- Assignment 3
- Exam

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Competence in IT strategic planning.

Assessment tasks

- Assignment 1
- Group Project Brief
- Assignment 3
- Group presentation
- Exam

Learning and teaching activities

- Covers tutorial material every week

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Competence in IT strategic planning.
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Assessment tasks

- Group Project Brief
- Group presentation

Learning and teaching activities

- Covers lecture material every week

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Competence in IT strategic planning.
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Assessment tasks

- Assignment 2
- Assignment 3
- Group presentation
- Exam

Learning and teaching activities

- Covers lecture material every week
- Covers tutorial material every week
- Covers practical components of the course in the computer labs

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Ability to acquire knowledge needed integrate new systems and processes of an organisation
- Competence in IT strategic planning.
- Competence in Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Assessment tasks

- Assignment 2
- Group Project Brief
- Assignment 3
- Exam

Learning and teaching activities

- Covers lecture material every week
- Covers tutorial material every week
- Covers practical components of the course in the computer labs

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing

data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Competence in IT strategic planning.
- Ability to use various modelling techniques to describe information flows and processes in an organisation.
- Competence in XML (eXtensible Markup Language) to web enable business applications.

Assessment tasks

- Assignment 2
- Assignment 3
- Exam

Learning and teaching activities

- Covers tutorial material every week
- Covers practical components of the course in the computer labs

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- Competence in IT strategic planning.

Assessment tasks

- Assignment 2
- Group Project Brief
- Assignment 3
- Group presentation
- Exam

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcome

- Ability to acquire knowledge needed integrate new systems and processes of an organisation

Learning and teaching activities

- Covers lecture material every week

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcome

- Ability to acquire knowledge needed integrate new systems and processes of an organisation

Learning and teaching activities

- Covers lecture material every week

Changes from Previous Offering

Peter is lecturing for 60% (weeks 1-7) and Oldooz for 40% (weeks 8-12) of the course.

Assignment 2 (the key individual assignment) is now worth 20% up from 15%. However the group presentation (where members are nonetheless individually marked) is now only worth 5%. The logic for the decrease to 5% is because in fact each individual presents material for only 2-3 minutes within their group and so 10% is excessive for such a short period of time.

Grading

Standards

Four standards, namely HD, D, CR, P summarize as many different levels of achievement. Each standard is precisely defined to help students know what kind of performance is expected to deserve a certain mark. The standards corresponding to the learning outcomes of this unit are given below:

L.O. #1

Criteria for L.O. #2				
undertaking SWOT analysis	a limited understanding of what SWOT is and how it works, perhaps making a few simple mistakes	competent analysis of SWOT for a given organisation listing a few each of S, W, O and T factors	good SWOT analysis, with some recourse to the literature providing similar examples in the case of other organisations	outstanding SWOT analysis with comprehensive recourse to the literature

Criteria for L.O. #3				
using modelling software	limited use of BP Modeller showing some understanding of the tool	competent use of BP Modeller showing understanding of the software and ability to use it effectively, perhaps making some basic mistakes	good understanding of the software, modelling workflows proficiently and using tool appropriately without any significant mistakes	excellent understanding of the software, modelling workflows proficiently and using tool appropriately at an expert level
workflow modelling to improve workflow effeciency	limited understanding of workflow modelling, some obvious mistakes	competent understanding of workflow modelling, some trivial mistakes still in evidence, but generally an understanding of what is taking place and why	some incorporation of the literature beyond just compentent understanding of workflow modelling	an excellent grasp of workflow modelling, also drawing on the literature widely to exemplify in the case of further examples how workflow modelling has aided other organisations as well
Criteria for L.O. #4				
understanding how use of code such as XML will enable ecommerce	limited understanding of what XML actually is and does, however showing some understanding of how XML enables ecommerce	competent understanding of XML, limited recourse to the literature, perhaps just relying on the textbook or lecture notes	good understanding of the role of XML, with some recourse to examples in the literature, beyond just knowledge of XML from the lecture notes	outstanding understanding of the role XML plays, with comprehensive recourse to the literature providing further examples beyond what was asked for in the assignment
competence in XML	basic competence in coding, shows obvious and basic mistakes in coding	proficient but perhaps ineffecient coding in XML, still displaying some mistakes, parameters names obtuse and commenting limited	proficient coding in XML, perhaps a few trivial mistakes still in evidence, but generally codes quite competently	outstanding coding in XML, with code effeciencies clearly displayed, all parameters using meaningful names, code well commented
Criteria for L.O. #5				
understanding how WSDL and BPEL enable ecommerce	limited understanding of what WSDL and BPEL actually is and do, however showing some understanding of how they enables ecommerce	competent understanding of WSDL and BPEL, limited recourse to the literature, perhaps just relying on the textbook or lecture notes	good understanding of the role of WSDL and BPEL, with some recourse to examples in the literature, beyond just knowledge of WSDL and BPEL from the lecture notes	outstanding understanding of the role WSDL and BPEL play, with comprehensive recourse to the literature providing further examples beyond what was asked for in the assignment
competence in WSDL and BPEL	basic competence in coding, shows obvious and basic mistakes in coding	proficient but perhaps ineffecient coding in WSDL and BPEL, still displaying some mistakes, parameters names obtuse and commenting limited	proficient coding in WSDL and BPEL, perhaps a few trivial mistakes still in evidence, but generally codes quite competently	outstanding coding in WSDL and BPEL, with code effeciencies clearly displayed, all parameters using meaningful names, code well commented

For each task, those standards translate into a mark and the different component marks are added up. You will then be given a grade that reflects your achievement in the unit. The following description of the different grades is still in draft form and therefore not official as yet

- **Fail (F)**: does not provide evidence of attainment of all learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; and incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

- **Pass (P)**: provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; and communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.

- **Credit (Cr)**: provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; plus communication of ideas fluently and clearly in terms of the conventions of the discipline.

- **Distinction (D)**: provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.

- **High Distinction (HD)**: provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application.

You will pass the unit if you

- perform satisfactorily in the assignments. A pass will mean you have satisfied the requirements stated in the assignment specification. Higher grades will mean you have shown evidence of using the set literature, particularly at grades Distinction and High Distinction.

- will be present and deliver some slides for your group presentation. Groups are only organised after the census date (31/8), therefore if you are allocated to a group, you are

still considered formally enrolled in the course.

- peform satisfactorily in the exam.

You stand a chance of failing if you do not submit satisfactory attempts at the assignments on time, you do not turn up at the group presentation without good reason and you do not perform satisfactorily in the exam.

Department of Computing expectations are that students have to perform satisfactorily in the final exam as well as in their internal work/assignments.