COMP3760
Enterprise Systems Integration
Session 2, In person-scheduled-weekday, North Ryde 2024
School of Computing

Contents

General Information .................................................................................................................. 2
Learning Outcomes .................................................................................................................. 3
General Assessment Information ............................................................................................ 3
Assessment Tasks ....................................................................................................................... 4
Delivery and Resources ............................................................................................................ 6
Unit Schedule ............................................................................................................................. 8
Policies and Procedures ............................................................................................................ 9
Changes from Previous Offering ............................................................................................. 11
Grading ..................................................................................................................................... 11
Changes since First Published ................................................................................................. 14
## General Information

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
<th>Contact</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit convenor and teaching staff</td>
<td>Dr. Peter Busch</td>
<td><a href="mailto:peter.busch@mq.edu.au">peter.busch@mq.edu.au</a></td>
<td>Email</td>
<td>4 RPD 284</td>
<td>TBD</td>
</tr>
<tr>
<td>Lecturer, practical demonstrator</td>
<td>Dr. Yang Zhang</td>
<td><a href="mailto:yang.zhang@mq.edu.au">yang.zhang@mq.edu.au</a></td>
<td>Email</td>
<td>4 RPD 3rd floor</td>
<td>TBD</td>
</tr>
<tr>
<td>Practical demonstrator</td>
<td>Dr. Rafiullah Khan</td>
<td><a href="mailto:rafiullah.khan@mq.edu.au">rafiullah.khan@mq.edu.au</a></td>
<td>Email</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Practical demonstrator</td>
<td>Dr. Mohib Ullah</td>
<td><a href="mailto:mohib.ullah@mq.edu.au">mohib.ullah@mq.edu.au</a></td>
<td>Email</td>
<td>TBD</td>
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</tbody>
</table>

### Credit points
10

### Prerequisites
130cp at 1000 level or above including (COMP2350 or ISYS224) or (COMP2750 or ISYS254) or (COMP2050 or COMP255)

### Corequisites

### Co-badged status
COMP6760
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:

ULO1: utilise knowledge needed to integrate new systems and processes of an organisation
ULO2: comprehend the principles involved in strategic planning for IT
ULO3: competently use various modelling techniques to describe information flows and processes in an organisation.
ULO4: competently express structures in XML (eXtensible Markup Language) to web enable business applications.
ULO5: appreciate and code with the Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

General Assessment Information
Late Assessment Submission Penalty
From 1 July 2022, Students enrolled in Session based units with written assessments will have the following university standard late penalty applied. Please see https://students.mq.edu.au/study/assessment-exams/assessments for more information.

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through ask.mq.edu.au.

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the
assessment is submitted. Submission time for all written assessments is set at 11:55 pm. A 1-hour grace period is provided to students who experience a technical concern.

For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

**Assessments where Late Submissions will be accepted**

In this unit, late submissions will accepted as follows:

- Assignment 1 - YES, Standard Late Penalty applies
- Assignment 2 - YES, Standard Late Penalty applies
- Assignment 3 - YES, Standard Late Penalty applies

**Assessment tools and submission**

Marking rubrics are used for assignments

Assignments are submitted on iLearn and Turnitin

Assessments are marked as soon as practicable - typically within a couple of weeks.

The exam may take place via a pink paper or online. Where a special consideration for an exam has been submitted and accepted a supplementary exam is available some weeks after the initial exam.

**To pass this unit you must:**

- Achieve a total mark equal to or greater than 50%.

**Assessment Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>10%</td>
<td>No</td>
<td>2024-08-16</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>20%</td>
<td>No</td>
<td>2024-09-13</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>20%</td>
<td>No</td>
<td>2024-10-18</td>
</tr>
<tr>
<td>Exam</td>
<td>50%</td>
<td>No</td>
<td>Exam Period</td>
</tr>
</tbody>
</table>

**Assignment 1**

Assessment Type 1: Report
Indicative Time on Task 2: 10 hours
Due: **2024-08-16**
Weighting: **10%**
A report on eBusiness principles

On successful completion you will be able to:

- utilise knowledge needed to integrate new systems and processes of an organisation
- comprehend the principles involved in strategic planning. for IT

Assignment 2

Assessment Type 1: Design Task
Indicative Time on Task 2: 20 hours
Due: **2024-09-13**
Weighting: **20%**

Business Process Modelling

On successful completion you will be able to:

- utilise knowledge needed to integrate new systems and processes of an organisation
- comprehend the principles involved in strategic planning. for IT
- competently use various modelling techniques to describe information flows and processes in an organisation.

Assignment 3

Assessment Type 1: Practice-based task
Indicative Time on Task 2: 20 hours
Due: **2024-10-18**
Weighting: **20%**

Group assignment implementing an 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:

- utilise knowledge needed to integrate new systems and processes of an organisation
- competently use various modelling techniques to describe information flows and
processes in an organisation.

- competently express structures in XML (eXtensible Markup Language) to web enable business applications.
- appreciate and code with the Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

Exam

Assessment Type 1: Examination
Indicative Time on Task 2: 40 hours
Due: Exam Period
Weighting: 50%

Examination on potentially all material covered in the unit.

On successful completion you will be able to:

- utilise knowledge needed to integrate new systems and processes of an organisation
- comprehend the principles involved in strategic planning for IT
- competently use various modelling techniques to describe information flows and processes in an organisation.
- competently express structures in XML (eXtensible Markup Language) to web enable business applications.
- appreciate and code with the Web Services Description Language (WSDL) and Business Process Execution Language (BPEL).

1 If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

2 Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

CLASSES

Each week you should attend two hours of lectures in the standard lecture format. There will also be a practical class covering the technology - modelling tools, XML etc.
For details of days, times and rooms consult your student timetable.

**Lectures** commence in **week 1**.

**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.

**REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS**

A recommended **eText** for COMP3760/6760 (around which some of the course is based) is:


There are a few more books you may wish to acquire, these are not compulsory but potentially helpful.


**UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED**

**echo360**

Digital recordings of lectures are available. We will record with echo360. Read instructions [here](https://unitguides.mq.edu.au/unit_offerings/163044/unit_guide/print).

**Technology**

Technology used will include Adonis BPM modelling software. 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 chosen for the group assignment, you will have the opportunity to discuss issues amongst yourselves on iLearn.

**Methods of Communication**

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

**COVID Information**

https://unitguides.mq.edu.au/unit_offerings/163044/unit_guide/print
For the latest information on the University’s response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website. Remember to check this page regularly in case the information and requirements change during semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.

## Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture - Monday 11-1pm</th>
<th>Text</th>
<th>Practicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Busch</td>
<td>Introduction to eBusiness and planning for eBusiness</td>
<td>Papazoglou and Ribbers chapters 1, 2</td>
<td>No practical</td>
</tr>
<tr>
<td>2 Busch</td>
<td>Information modelling for eBusiness and BPM</td>
<td>chapter 12, ADONIS modelling notes</td>
<td>Introduction to modelling</td>
</tr>
<tr>
<td>3 Busch</td>
<td>eBusiness models and relationships</td>
<td>chapters 3, 4</td>
<td>Introduction to ADONIS 1</td>
</tr>
<tr>
<td>4 Busch</td>
<td>Governance structures and eMarkets</td>
<td>chapters 5, 8</td>
<td>ADONIS practical 2 Assignment 1 (10%) due 16th August</td>
</tr>
<tr>
<td>5 Busch</td>
<td>Knowledge management</td>
<td>Busch (2008)</td>
<td>ADONIS practical 3</td>
</tr>
<tr>
<td>6 Busch</td>
<td>eBusiness technological infrastructure</td>
<td>chapter 6</td>
<td>ADONIS practical 4</td>
</tr>
<tr>
<td>7 Zhang</td>
<td>XML EDI and Middleware EDI concepts and standards Middleware concepts, architecture and systems</td>
<td>chapters 7, 14</td>
<td>Introduction to XML</td>
</tr>
<tr>
<td>8 Zhang</td>
<td>Loosely coupled eBusiness solutions Concept of software as a service Web services Web service architecture</td>
<td>chapter 19</td>
<td>XML, Middleware Assignment 2 (20%) due 13th September</td>
</tr>
<tr>
<td>9 Zhang</td>
<td>Workflow systems Workflow concepts Workflow elements Workflow modeling Workflow verification</td>
<td>chapter 18</td>
<td>Business solutions, Workflow systems</td>
</tr>
</tbody>
</table>

Mid Semester Break: 14-29th September
### Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- **Academic Appeals Policy**
- **Academic Integrity Policy**
- **Academic Progression Policy**
- **Assessment Policy**
- **Fitness to Practice Procedure**
- **Assessment Procedure**
- **Complaints Resolution Procedure for Students and Members of the Public**
- **Special Consideration Policy**

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) and use the search tool.
Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: [https://students.mq.edu.au/admin/other-resources/student-conduct](https://students.mq.edu.au/admin/other-resources/student-conduct)

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

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/](http://students.mq.edu.au/support/)

The Writing Centre

The **Writing Centre** provides resources to develop your English language proficiency, academic writing, and communication skills.

- **Workshops**
- Chat with a WriteWISE peer writing leader
- **Access StudyWISE**
- **Upload an assignment to Studiosity**
- **Complete the Academic Integrity Module**

The Library provides online and face to face support to help you find and use relevant information resources.

- **Subject and Research Guides**
- **Ask a Librarian**
Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

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

Changes from Previous Offering

Drs Busch and Zhang take the lectures as was the case in 2023. Lecture notes are also updated as is the SGTA material.

This semester, practicals will again be taken by Dr. Zhang, however Drs. Rafiullah Khan and Mohib Ullah join us in taking practicals as well.

Monday week 10 will be a recorded lecture as that Monday is a public holiday - Labour Day.

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

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:
Criteria for L.O. #1

#1

Developing Functional Proficient Advanced
comprehending
strategic
strengths of
companies
understanding
that
organisations
have
strengths,
expressed
through basic
statements
articulating
how some
organisations
may be better
than others
some indication
that literature
exists
providing
wider
examples of
competitive
strengths in
organisations
satisfactory
recourse to the
literature,
illustrating
similar company
profiles with
regard to their
competitive
advantage and
how these
factors relate to
the material
under study

understanding
the impact of
internet
limited
understanding
with regard to
what the
internet can
deliver to
business
improvement
some
awareness of
how
ecommerce
changed the
modern
business by
showing
minimal
examples
from the
literature
providing
numerous
examples from
the literature
showing how the
internet has
changed the
modern business
world

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

https://unitguides.mq.edu.au/unit_offerings/163044/unit_guide/print
<table>
<thead>
<tr>
<th>Criteria for L.O. #4</th>
<th>Criteria for L.O. #5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>using modelling software</strong></td>
<td><strong>understanding how use of code such as XML will enable ecommerce</strong></td>
</tr>
<tr>
<td>limited use of BP Modeller showing some understanding of the tool</td>
<td>limited understanding of what XML actually is and does, however showing some understanding of how XML enables ecommerce</td>
</tr>
<tr>
<td>competent use of BP Modeller showing understanding of the software and ability to use it effectively, perhaps making some basic mistakes</td>
<td>competent understanding of XML, limited recourse to the literature, perhaps just relying on the textbook or lecture notes</td>
</tr>
<tr>
<td>good understanding of the software, modelling workflows proficiently and using tool appropriately without any significant mistakes</td>
<td>good understanding of the role of XML with some recourse to examples in the literature, beyond just knowledge of XML from the lecture notes</td>
</tr>
<tr>
<td>excellent understanding of the software, modelling workflows proficiently and using tool appropriately at an expert level</td>
<td>outstanding understanding of the role XML plays, with comprehensive recourse to the literature providing further examples beyond what was asked for in the assignment</td>
</tr>
<tr>
<td><strong>workflow modelling to improve workflow efficiency</strong></td>
<td><strong>competence in XML</strong></td>
</tr>
<tr>
<td>limited understanding of workflow modelling, some obvious mistakes</td>
<td>basic competence in coding, shows obvious and basic mistakes in coding</td>
</tr>
<tr>
<td>competent understanding of workflow modelling, some trivial mistakes still in evidence, but generally an understanding of what is taking place and why</td>
<td>proficient but perhaps inefficient coding in XML, still displaying some mistakes, parameters names obtuse and commenting limited</td>
</tr>
<tr>
<td>some incorporation of the literature beyond just competent understanding of workflow modelling</td>
<td>proficient coding in XML, perhaps a few trivial mistakes still in evidence, but generally codes quite competently</td>
</tr>
<tr>
<td>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</td>
<td>outstanding coding in XML, with code efficiencies clearly displayed, all parameters using meaningful names, code well commented</td>
</tr>
<tr>
<td><strong>competence in WSDL and BPEL</strong></td>
<td><strong>understanding how WSDL and BPEL enable ecommerce</strong></td>
</tr>
<tr>
<td>basic competence in coding, shows obvious and basic mistakes in coding</td>
<td>limited understanding of what WSDL and BPEL actually is and do, however showing some understanding of how they enables ecommerce</td>
</tr>
<tr>
<td>proficient but perhaps inefficient coding in WSDL and BPEL, still displaying some mistakes, parameters names obtuse and commenting limited</td>
<td>competent understanding of WSDL and BPEL, limited recourse to the literature, perhaps just relying on the textbook or lecture notes</td>
</tr>
<tr>
<td>proficient coding in WSDL and BPEL, perhaps a few trivial mistakes still in evidence, but generally codes quite competently</td>
<td>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</td>
</tr>
<tr>
<td>outstanding coding in WSDL and BPEL, with code efficiencies clearly displayed, all parameters using meaningful names, code well commented</td>
<td>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</td>
</tr>
</tbody>
</table>

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.

The final mark for the unit will be calculated by combining the marks for all assessment tasks
according to the percentage weightings shown in the assessment summary.

### Changes since First Published

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/07/2024</td>
<td>Sorry Gaurav, I fixed up the lecture time in the unit schedule (3760/6760) to Monday 11-1pm! Sorry - please re-approve!</td>
</tr>
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</table>

https://unitguides.mq.edu.au/unit_offerings/163044/unit_guide/print