School of Computing and Information Systems

Unit Outline

KXI202 Systems Development Methodologies

Semester 2, 2008
Sandy Bay Campus, Hobart
Newnham Campus, Launceston

Unit Coordinator
Bob Godfrey
E-Mail: Bob.Godfrey@utas.edu.au
Phone: (03) 6324 3390
Room: V172, Newnham Campus, Launceston

UNIT OVERVIEW

Introduction
An understanding of systems development methodologies is central to Information Systems. The unit is designed to lead to the ability to analyse an organisational context to determine the need for a systems development methodology, and then to be able to select an appropriate methodology.

Prerequisites
KXI201 (or BSA201) or BSA621

Unit Weight
12.5% of one academic year

Teaching Pattern
26 contact hours, delivered as one two-hour workshop per week.

Students will be expected to undertake additional out-of-class work. This work will include completing weekly readings available on MyLO, participating in small group discussions of issues related to the readings through MyLO and completing assignments.

A substantial amount of self-study is required for this unit. Please note there is an expectation of a minimum of 39 additional hours of self-study during the semester, in addition to attendance and participation in the workshops. Reading the MyLO notes, participating in MyLO small group discussions and activities and undertaking the readings associated with a particular week form essential activities for the Unit. Students will not be able to make an effective contribution to the workshops and make progress in the Unit unless this self-study has been done.

As there are no lectures for this unit and the delivery of the sessions is in a workshop style, students are expected to attend all workshops and be available to work with fellow students for the specified duration of the workshops.

On-line discussion provides you opportunity for deeper, more meaningful and reflective consideration of issues, through shared learning. It is also designed to help prepare you for your future work experiences. It does so by paralleling the style of learning that is likely to take place in the workplace, where employees learn incrementally, with and from each other. Your learning will take place through discussing and applying concepts that you have read about, or sharing your life experience that will help others better understand the topic. This approach has been deliberately chosen because it requires you to become an active participant in your learning, rather than a passive receptacle of knowledge delivered by others. Online discussion also allows everyone to be heard, even the more
Students will be allocated to small groups. A topic for discussion will be posed weekly from Week 15, linked to the readings, to be considered in the MyLO small group discussions. Each group will nominate a leader for each week, who will take responsibility for managing the small group discussion for that week. The leader will synthesise the discussion and post a brief summary to a discussion group that can be viewed by all KXI202 students.

Each student will need to log on to the discussion groups at least twice a week, once from Monday at 9am to make a written contribution to the on-line discussion for completion by Wednesday at 12 noon of each week. The second time must be between 9am on Friday of the same week and 9am on Monday the following week to read the summaries from the leaders of all the small groups.

Leaders will need to summarise the discussion from their group for all students enrolled in KXI202 between Wednesday 12 noon and record it on-line, to be completed by 9am on Friday of the same week. The group will ensure that the summaries are submitted by a leader each week.

It is expected that students will spend at least 30 minutes each week participating in the discussion group activities when they are not the leader, and longer when they are the group leader. Note that just reading the posts is not adequate; students are required to write at least one relevant response of at least 50 words each week to the small group discussion when not group leader, as well as read the posts.

The Unit Co-ordinator will monitor both the small and the large group discussion groups, but is unlikely to participate in the discussion apart from where moderation is required, or, unusually, to make a comment on the group summaries. Where a student or group leader makes a written contribution to discussion outside the specified period, the contribution will be disregarded for assessment purposes. Similarly, where a student reads the summaries outside the specified period, this will also be disregarded for assessment purposes.

**Unit Content**

The content for this unit will be released on MyLO on a week-by-week basis. For more information see the section titled ‘Content’ on the unit website.

**Prior Knowledge and/or Skills**

- Skills needed to be able to access the information on, and use the tools associated with, MyLO. For assistance refer to: [http://www.utas.edu.au/tlo/browse.htm?L2=students](http://www.utas.edu.au/tlo/browse.htm?L2=students)
- Knowledge of report structure. The following report structure is used in this unit:
  1. title page
  2. table of contents
  3. executive summary
  4. introduction
  5. body (usually with multiple sections)
  6. conclusions
  7. recommendations
  8. appendices
  9. list of references

  Reports should include headers and footers commencing at the executive summary, and all section headings need to be hierarchically numbered. The table of contents should be automatically generated within Microsoft Word. The text by Dwyer (2006) listed above is a useful resource for assistance in the development of specific sections of a report.
- Web searching skills. Free online training for students on using a web browser can be accessed from a link at the following page: [http://www.utas.edu.au/it_training/ie6/index.html](http://www.utas.edu.au/it_training/ie6/index.html)
- Basic case study analysis skills. Please advise the unit co-ordinator by the start of Workshop 3 if you consider you do not have basic case study analysis skills. Note that a case study will be considered during Workshop 2.
- An awareness of the nature of plagiarism. Please refer to the statement later in this document about plagiarism as well as: [http://www.utas.edu.au/plagiarism/](http://www.utas.edu.au/plagiarism/)
- Time management, organisational and other self-study skills. For assistance in this area refer to the study skills resources listed at: [http://student.admin.utas.edu.au/services/counselling/](http://student.admin.utas.edu.au/services/counselling/)
- Competence in speaking, listening, reading and writing English appropriate for an undergraduate program. Please advise the unit co-ordinator by the start of Workshop 3 if you consider you do not have the level of English language competence needed for this Unit.
- Basic groupwork skills. For assistance refer to Dwyer (2006) listed earlier in this document.

**Learning Outcomes**

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

1. Have a knowledge of the process of developing information systems;
2. Understand the purpose of using systems development methodologies;
3. Be able to analyse an organisational context and need for a system development methodology;
4. Be able to select an appropriate systems development methodology to match an organisational context and need; and
5. Be able to use some popular tools and techniques associated with systems development methodologies.

**Generic graduate attributes**

The university has defined a set of generic graduate attributes expected in its graduates. [http://www.utas.edu.au/policy/subject.html#graduates](http://www.utas.edu.au/policy/subject.html#graduates) Your course is designed to enable you to develop generic skills that are valued in, and expected of, graduates. These are skills that you will need to develop over time. Hence you are encouraged to look for opportunities, as you study each unit, to reflect on and improve these skills.

Successful completion of this unit will contribute to the development of the following aspects of the Generic Graduate Attributes, as identified by the University. The example in brackets will indicate where in the Unit the attribute is developed and/or assessed.

1. Graduates will have an in-depth knowledge in their chosen field of study and the ability to apply that knowledge in practice. They will be prepared for life-long learning in pursuit of personal and professional development
   a. Apply appropriate technical and information skills (Workshop 4);
   b. Use a wide range of academic skills, including analysis and synthesis (report recommending appropriate methodology);
   c. Identify, evaluate and implement personal learning strategies (individual learning from MyLO material);
   d. Learn both independently and cooperatively (most workshop sessions);
   e. Learn new skills and apply learning to new situations (case studies).

2. Graduates will be able to communicate effectively across a range of contexts
   a. Demonstrate oral and written communication (assignments and workshops);
   b. Present well-reasoned arguments (assignments, workshops and examination);
   c. Access, organise and present information, particularly through technology-based activity (most assessment activities);
   d. Listen to and evaluate the views of others (workshops).

3. Graduates will be effective problem-solvers, capable of applying logical, critical and creative thinking to a range of problems. They will have developed competencies in information literacy
   a. Identify critical issues in systems development (most sessions; most assessment activities);
   b. Conceptualise problems and formulate a range of solutions (case studies and assignments);
   c. Work effectively with others (workshop activities);
   d. Find, acquire, evaluate, manage and use relevant information in a range of media (most assessment activities, readings).

4. Graduates will act ethically, with integrity and social responsibility
   a. Acknowledge the social and ethical implications of their actions (in referencing in some assessment tasks);
   b. Appreciate the impact of social change (through Soft Systems Methodology).

**UNIT ASSESSMENT**

**Assessment Pattern**

Internal (60%), Exam (40%)

**Assessment Summary**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>20%</td>
<td>3:00 pm 28th August, 2008</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>25%</td>
<td>3:00 pm 25th September, 2008</td>
</tr>
<tr>
<td>Group discussions</td>
<td>15%</td>
<td>Weekly</td>
</tr>
<tr>
<td>Examination</td>
<td>40%</td>
<td>University Examination Period</td>
</tr>
</tbody>
</table>

**Assessment Items**

**Item 1**

**Title:** Assignment 1  
**Type:** In-Semester - individual assignment  
**Task Length:** Approximately 2,000 words  
**Weighting:** 20%  
**Links to Learning Outcomes:** 3, 5  
**Due:** 3:00 pm 28th August, 2008
Description: A report incorporating the analysis and modelling of a systems development using Soft Systems Methodology (SSM) for a problem situation described in a case study.

Item 2
Title: Assignment 2
Type: In-Semester - individual assignment
Task Length: Approximately 2,500 words
Weighting: 25%
Links to Learning Outcomes: 2, 3, 4
Due: 3:00 pm 25th September, 2008
Description: A report evaluating the appropriateness of three systems development methodologies for the development of an information system described in a case study.

Item 3
Title: Group discussions
Type: In-Semester - learning tasks
Task Length: not applicable
Weighting: 15%
Links to Learning Outcomes: 1, 3, 5
Due: Weekly
Description: Weekly small group discussions on MyLO, responding to set issues, as well as reading, commenting and summarising the postings of other group members. Each student will be expected to take turns in leading the group and reporting on the outcomes.

Item 4
Title: Examination
Type: Formal Examination
Task Length: two hours
Weighting: 40%
Links to Learning Outcomes: 1, 2, 3, 4, 5
Due: University Examination Period
Description: Two hour closed book written examination. Students will be permitted to bring a single hand-written sheet of A4 paper into the examination.

See the 'Assessment' section in unit website for more detailed information about assessment items.

How your Final Grade will be determined

Overall assessment will be based on the student's performance throughout the semester as well as in a formal examination. In order to achieve a pass (or better) result, a student must obtain:

1. at least 45% of the total mark for in-semester assessment items
2. at least 45% of the mark for the formal examination
3. at least 50% of the overall mark

UNIT RESOURCES

Unit Web Site
This unit is Web Dependent: content & communication. This means that you will need to use the Web for this unit. The unit website contains unit information and resources. The unit website is accessed from http://www.utas.edu.au/coursesonline/. You will need to use your university email pop account username and password to log on to the MyLO system. Once authenticated by the system your personalised MyLO Learning Online area will be displayed. It contains links to the websites that you have permission to access - including the website for this unit.
If you are not able to access the unit website, please contact the University IT help desk:
   Entrance Level, Morris Miller Library, Sandy Bay Campus;
   Entrance Level, Launceston Campus Library, Newnham Campus.
   Telephone: 6226 1818 and 1300 304 903.
The 1300 number is a local call from within Tas, with the exception of mobiles.
Email: servicedesk@utas.edu.au
Website: http://www.utas.edu.au/servicedesk/student/index.html

Prescribed Text
Specific sections will be listed in the notes available on MyLO.

Readings

Software
The software that you will need to access the unit website and to study this unit, including general purpose software such as word processors, is provided on the computers in the School's computing labs. If you intend to use software on other computers please check that the versions are compatible.
GENERAL RESOURCES

School Website
School of Computing and Information Systems - Faculty of Science, Engineering, and Technology.
http://www.cis.utas.edu.au

Faculty Website
Information and Resources for Faculty of Science, Engineering and Technology students are available on the faculty website at: http://www.utas.edu.au/scieng

University Website
Information and Resources for 'Current Students' are available on the university website at: http://www.utas.edu.au/students/

School Help Desk
Contact the School Help Desk if you have any queries or problems with accessing, using, or printing from the computers in the School of Computing and Information Systems labs.

In Hobart the Help Desk is located on level 3 in the Centenary building, and is open from 10:00am-12:00pm, and 2:00pm-4:00pm Monday-Friday. The phone number is 6226 2929.

In Launceston the Help Desk is located near the entrance to the computing labs and is open from 10:00am-12:00pm, and 2:00pm-4:00pm Monday-Friday. The phone number is 6324 3447.

Both help desks will accept queries over the phone outside the standard opening hours.

The computer labs at the Cradle Coast Campus are maintained by ITR - please contact the University Help Desk for assistance with these computers.

Computing Facilities
The School has PC labs (running Windows XP), Mac labs (running Mac OS X 10.5), and special purpose Networking labs at the Newnham and Sandy Bay campuses. All students are provided with logins for Windows, Macintosh and Unix environments. If you have not used these facilities before please contact the School Help Desk to collect your account details. If you would like to access these facilities after hours please contact the School Help Desk.

In Hobart, there are 3 PC labs, 2 Mac Labs, and 1 Networks lab in the Centenary building, and 3 PC labs in the CIS building. In Launceston, there are 2 PC labs, 1 Mac Lab, 1 Networks lab, and one multipurpose lab in Building V.

Use of Facilities
Use of computing facilities provided by the School is subject to the School's Ethics Guidelines, details of which are posted at http://www.cis.utas.edu.au/cisview/ethics.jsp. Copies of the guidelines are also available in all School labs. The School’s facilities may only be used for study-related purposes, and may not be used for personal gain. Anti-social behaviour in labs such as game playing, viewing pornography, loud discussion, audio without the use of headphones, etc is strictly prohibited in all labs at all times. Eating, drinking, and smoking is not permitted in the labs.

Before being granted access to the School's facilities, you will be required to sign a declaration that you have read and understand these guidelines, and that you will abide by them. Disciplinary action may be taken against students who violate the guidelines.

Learning Strategies
If you need assistance in preparing for study please refer to your tutor or lecturer. For additional information refer to the Learning Development website: http://www.utas.edu.au/learndev/

If you will be using MyLO for the first time and would like some information on how to use MyLO refer to the following website: http://www.utas.edu.au/coursesonline/mylo-support.htm

Some of the units you will study use videoconferencing to deliver lectures and tutorials. To enable you to get the best out of a videoconference please refer to the following guide: http://www.its.utas.edu.au/videoconf/vcstudentguide.pdf

Help resolving concerns about this unit
In the first instance you should contact your lecturer. If the matter is not resolved then you should contact the Head of School. If the matter is still unresolved and you would like to know who to contact or the procedures for resolving your concern refer to the following website: http://acserv.admin.utas.edu.au/complaints_info.html

The Hobart based Tasmanian University Union (TUU) or the Launceston/Burnie based Student Association (SA) may also be able to assist.

The School reserves the right to alter the details contained in this Unit Outline. Students will be advised of changes to the outline via their University email account and it remains the responsibility of the student to check their email for
such changes.

**Occupational Health and Safety**

The university is committed to providing a safe and secure teaching and learning environment. For more information see [http://www.admin.utas.edu.au/hr/ohs/pol_proc/](http://www.admin.utas.edu.au/hr/ohs/pol_proc/)

**University Services and Support**

If you are experiencing difficulties with your studies or assignments, have personal or life planning issues, disability or illness which may affect your course of study, you are advised to raise these with your lecturer in the first instance.

The University has staff available to assist you, such as the:

- Learning Development Advisor
- Student Counselor
- Careers Advisor
- Disability Officer

For more information and contact details see the Services and Support section on the University ‘Current Students’ web page: [http://www.utas.edu.au/students/](http://www.utas.edu.au/students/)

**GENERAL ASSESSMENT**

**Approach to Learning**

The University is committed to high standards of professional conduct in all activities, and holds its commitment and responsibilities to its students as being of paramount importance. Likewise, it holds expectations about the responsibilities students have as they pursue their studies within the special environment the University offers.

The University’s Code of Conduct for Teaching and Learning states:

Students are expected to participate actively and positively in the teaching/learning environment. They must attend classes when and as required, strive to maintain steady progress within the subject or unit framework, comply with workload expectations, and submit required work on time.

You are expected to spend about 130 hrs studying in this unit - this includes attendance at scheduled teaching sessions. (For a 13 week semester this is, on average, 10 hr/wk.) This is the amount of study time that the ‘typical’ student will need to reach the level of competence and understanding required to fulfil the unit objectives. You are expected to:

- attend all scheduled teaching sessions, unless otherwise notified by the unit coordinator
- prepare for, and actively participate in all scheduled teaching sessions
- complete the assigned learning tasks
- review what has been learnt
- complete assessment items and submit them on time
- access and be familiar with the information and resources available on the unit website
- seek help from teaching staff if you have any questions or difficulties in studying this unit


It is expected that students will familiarise themselves with access and use of the MyLO system operated by the University for the electronic delivery of course materials, and for various forms of communication.

It is expected that students will consult email sent to their University email address at least twice a week for notices relating to the administration of the unit, and for notification of the results of assignments.

It is expected that students will read the background material specified in the course curriculum, will actively attend and participate in tutorials, and be prepared to discuss relevant issues arising with tutors, lecturers and fellow students.

**Student Expectations of the Unit**

Students enrolled in this Unit may reasonably expect the following:

1. To be able to contact a lecturer or tutor by electronic mail, to raise issues arising in the unit, either relating to content or student performance within the unit.
2. Subject to availability, to be able to discuss such issues in person with the lecturer or tutor.
3. That assignments will be marked and the marks will normally be returned within 3 weeks of due dates.
4. That all relevant notices regarding the administration of the unit, including any necessary changes, will be communicated to all students enrolled in the unit via email.

These expectations are in addition to those specified in relevant University regulations.
Plagiarism

Unless specifically stated in the specification of the assessment item provided on the unit website, it is required that:

- work submitted by a student is the work of that student alone OR
- where the assessment item is to be completed by a group of students, the work submitted by the group of students is the work of that group of students alone.

While students are encouraged to discuss the assignments in this unit and to engage in active learning from each other, it is important that they are also aware of the University’s policy on plagiarism. Plagiarism is taking and using someone else's thoughts, writings or inventions and representing them as your own; for example, downloading an essay wholly or in part from the internet, copying another student's work or using an author’s words or ideas without citing the source.

"Plagiarism is a form of cheating. It is taking and using someone else's thoughts, writings or inventions and representing them as your own; for example, using an author's words without putting them in quotation marks and citing the source, using an author's ideas without proper acknowledgment and citation, copying another student's work.

If you have any doubts about how to refer to the work of others in your assignments, please consult your lecturer or tutor for relevant referencing guidelines, and the academic integrity resources on the web at http://www.academicintegrity.utas.edu.au.

The intentional copying of someone else's work as one's own is a serious offence punishable by penalties that may range from a fine or deduction/cancellation of marks and, in the most serious of cases, to exclusion from a unit, a course or the University. Details of penalties that can be imposed are available in the Ordinance of Student Discipline – Part 3 Academic Misconduct, see http://www.utas.edu.au/universitycouncil/legislation/.

The University and any persons authorised by the University may submit your assessable works to a plagiarism checking service, to obtain a report on possible instances of plagiarism. Assessable works may also be included in a reference database. It is a condition of this arrangement that the original author's permission is required before a work within the database can be viewed."

It is important that you understand this statement on plagiarism. Should you require clarification please see your unit coordinator or lecturer. Useful resources on academic integrity, including what it is and how to maintain it, are also available at: http://www.academicintegrity.utas.edu.au

Referencing

The preferred text referencing systems for the School is the Harvard system (also referred to as the author-date system). In your written work you will need to support your ideas by referring to scholarly literature, works of art and/or inventions. For information on presentation of assignments, including referencing styles: http://www.utas.edu.au/library/assist/gpoa/gpoa.html

It is important that you understand how to correctly refer to the work of others and maintain academic integrity. Failure to appropriately acknowledge the ideas of others constitutes academic dishonesty (plagiarism), a matter considered by the University of Tasmania as a serious offence. The university document on plagiarism contains information about referencing the work or ideas of others (see http://www.utas.edu.au/plagiarism/).

Submissions

The details of the submission method (paper, electronic or other) for each assignment will be supplied in a separate assignment specification sheet. All in-semester assignment submissions (including electronic submissions) are to include an Assignment Cover Sheet which includes a statement confirming that the submission is your own work. The Assignment Cover Sheet is available from the School Help Desk in Launceston and Hobart, and on the School's web site: http://www.cis.utas.edu.au/cisview/resources.jsp.

Students must take responsibility for the correct submission of their assignments. Students are expected to adhere to the following procedure for submission:

- Submitted files MUST be checked by the student to ensure that correct submission of the file has been undertaken.
- Students are expected to notify the Lecturer WITHIN TWO HOURS of submission if their files have not been submitted correctly.
- Students must take responsibility for safely backing up of their own files during the academic year to ensure that no files are permanently lost.

Extensions

Assessment items will not be accepted after the due date except under the conditions stated in the School policy on late assessment. http://www.cis.utas.edu.au/downloads/ExtensionPolicy.pdf (PDF - 100KB).

Review of Assessment and Appeals
1. It is expected that students will adhere to the following policy for review of any piece of continuous assessment.
   a. Within 5 days of the release of the assessment result, the student should request an appointment with the Lecturer. The student should be prepared to discuss specifically which section of the marking criteria they are disputing and why they consider the mark is inappropriate.
   b. Following this discussion, students may request a formal remark of the original submission (in accordance with Rule of Academic Assessment 111, clause 22.1). This remark will be undertaken, where practicable, by an alternative assessor.

2. Students may also request a review of the final result in a unit. The request and payment must be made within 10 days from the date of the result notification. Students are referred to Rule of Academic Assessment 111, clause 23 at http://www.utas.edu.au/universitycouncil/legislation/rule111.pdf and http://www.admin.utas.edu.au/ac_serv/flowchart_review_assesment.pdf.

Complaints Procedure

It is expected that students will adhere to the following policy for making any complaint or grievance directly related to a Unit:

   a. In the first instance, students are to approach the Lecturer or Unit Coordinator concerned and arrange a time to speak with them about their concern.
   b. If an issue remains unresolved, the student should approach the Head of School and arrange a time to speak with them about their concern.

If the School’s internal policy of complaints is unable to resolve an issue, students should consult Ordinance 8 Student Complaints for further direction, see http://acserv.admin.utas.edu.au/complaints_info.html

Formal Examination

The formal examination is conducted by the University Registrar. The 'Current Students' section on the university website contains information about the conduct of, and timetable for, formal examinations.

Final Grade

Passing grades will be awarded based on the AVCC guidelines:

   • PP at least 50% of the overall mark but less than 60%
   • CR at least 60% of the overall mark but less than 70%
   • DN at least 70% of the overall mark but less than 80%
   • HD at least 80% of the overall mark

In order to comply with the benchmarks set by the Faculty of Science, Engineering & Technology for distribution of grades in units, both the in-semester and examination marks that students obtain may be adjusted either upwards or downwards. See http://fcms.its.utas.edu.au/scieng/scieng/policies.asp for details of the Faculty Assessment Guidelines.