



UNIVERSITY
OF TASMANIA
塔 斯 马 尼 亚 大 学

School of Information Systems
商 学 院 信 息 系 统 学 院

Faculty of Business

BSA201
Systems Analysis & Design

Unit Outline
课 程 大 纲

Semester 1, 2007/08

(UTas: Semester 5, 2007)

Transnational Education Program
(Shanghai Fisheries University, China)
(中国 上海水产大学)

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CRICOS CODE: 00586B

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Unit Details

School:	Information Systems
Faculty:	Business
Unit Title:	Systems Analysis & Design
Unit Code:	BSA201
Prerequisites:	BSA101 (Business Information Systems)
Campus & Mode:	IEN Institute, Nanhui Campus, Shanghai Fisheries University: Internal
Unit Weight:	12.5%
Teaching Staff:	Dean Steer
Consultation Hours:	To Be Advised

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1. Unit Description

The unit covers various aspects of information systems analysis and design including systems requirements, systems theory, systems modelling and systems design.

2. Aim

- To understand the basic concepts related to information systems, particularly in the systems analysis and design phases.
- To learn the basic skills and techniques employed by a professional system analyst in systems analysis and design.
- To practise the use of information systems modelling and design tools.

3. Generic Graduate Attributes

Attribute	Descriptor	Unit Specifics
Knowledge	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.	<ul style="list-style-type: none"> • A knowledge of information requirements engineering techniques and tools; • A knowledge of business process modelling techniques and tools; • A knowledge of data modelling techniques and tools; • An understanding of the information system development life cycle and how various activities fit into the big picture of the systems development process.
Communication Skills	Graduates will be able to communicate effectively across a range of contexts.	<ul style="list-style-type: none"> • An awareness of the importance of adequate client consultation when developing the requirements for an information system; • Discussion of relevant problems with others, present their own opinions and critically assess the opinions of others; • Develop understanding of how to produce business reports, memos and letters and be able to use a variety of communication forms.
Problem-solving Skills	Graduates will be effective problem-solvers, capable of applying logical, critical and creative thinking in a range of problems. They will have developed competencies in information literacy.	<ul style="list-style-type: none"> • Develop the ability to solve a range of business problems through case study analysis and group discussion; • Conceptualise problems and formulate a range of solutions; • Find, acquire, evaluate, manage and use relevant information in a range of media.

Global Perspective	Graduates will be able to demonstrate a global perspective and inter-cultural competence in their professional lives.	<ul style="list-style-type: none"> • An appreciation of some of the issues of working with clients of different cultures in order to develop correct information systems; • An understanding of the key issues faced by system analysts from any culture in the development of correct information systems.
Social Responsibility	Graduates will act ethically, with integrity and social responsibility.	<ul style="list-style-type: none"> • The development of an awareness and understanding of the range of ethical and legal issues relevant to professionals in information systems.

4. Learning Outcomes and Evidences

Upon successful completion of this unit, a student should:

- 1) Understand the core concepts of information systems, mainly in the systems analysis and design phases.

Assessment criteria:

Grade Evidence

HD level: Demonstrate a deep understanding of the theories and core concepts of information systems and application of them in systems analysis and design.

DN level: Demonstrate an extensive understanding of the main theories and concepts of information systems and application of them in systems analysis and design.

CR level: Demonstrate a good understanding of the main theories and concepts of information systems and application of them in systems analysis and design.

PP level: Be able to provide a basic description of some theories and concepts of information systems and apply some of them in systems analysis and design.

NN level: Inability to provide a basic description of the theories and concepts covered in the unit and failure to apply them in systems analysis and design.

- 2) Understand the overall systems development process, systems theory and the problem solving processes involved in systems analysis.

Assessment criteria:

Grade Evidence

HD level: Demonstrate an in-depth knowledge and in-depth understanding of the overall systems development process and application of systems theory in problem solving and analysis of systems.

DN level: Demonstrate an extensive knowledge and understanding of the overall systems development process and application of systems theory in problem solving and analysis of systems.

CR level: Demonstrate a good understanding of the overall systems development process and be able to describe systems theory and its impact on systems analysis and problem solving.

PP level: Demonstrate a basic understanding of the overall systems development process and the relationship between systems theory and systems analysis.

NN level: Inability to demonstrate an understanding of the overall systems development process and the relationship between systems theory and systems analysis.

- 3) Understand and apply various techniques for gathering systems requirements and use different techniques and tools for modelling systems process and data.

Assessment criteria:

<u>Grade</u>	<u>Evidence</u>
HD level:	Demonstrate in-depth knowledge and a deep understanding of the various techniques for gathering systems requirements and application of them in the most appropriate circumstances and use the techniques and tools for modelling systems processes and data in a highly professional manner.
DN level:	Demonstrate extensive knowledge and understanding of the various techniques for gathering systems requirements and application of them in applicable circumstances and use the techniques and tools for modelling systems processes and data in a rather professional manner.
CR level:	Demonstrate good knowledge and understanding of some techniques for gathering systems requirements and application of them in different circumstances and be able to use the techniques and tools for modelling systems processes and data in an acceptable manner.
PP level:	Demonstrate a basic understanding of various techniques for gathering systems requirements but limited understanding of them in real applications and be able to use different techniques and tools for modelling systems processes and data.
NN level:	Inability to demonstrate a basic understanding of various techniques for gathering systems requirements and failure to use different techniques and tools for modelling systems processes and data.

- 4) Understand systems design issues and learn to apply good design practices.

Assessment criteria:

<u>Grade</u>	<u>Evidence</u>
HD level:	Demonstrate in-depth knowledge and in-depth understanding of systems design issues and apply good design practices in the design of a system.
DN level:	Demonstrate an extensive understanding of systems design issues and apply some good practices in the design of a system.
CR level:	Demonstrate good knowledge of systems design issues and produce an acceptable design of a system.
PP level:	Demonstrate a basic understanding of systems design issues and be able to produce a basic design of a system.
NN level:	Inability to demonstrate a basic understanding of systems design issues and failure to produce a basic design of a system.

- 5) Understand the various use and management of information systems in organizations and be familiar with the different roles of major stakeholders and the required skills of these people in systems analysis and design.

Assessment criteria:

<u>Grade</u>	<u>Evidence</u>
HD level:	Demonstrate in-depth knowledge and deep understanding of the various uses and management of information systems in organizations and roles of key personnel in systems analysis and design.
DN level:	Demonstrate an extensive understanding of the various uses and management of information systems in organizations and roles of key personnel in systems analysis and design.

- CR level: Demonstrate a good understanding of the various uses and management of information systems in organizations and roles of key personnel in systems analysis and design.
- PP level: Demonstrate a basic understanding of the various uses and management of information systems in organizations and roles of key personnel in systems analysis and design.
- NN level: Inability to demonstrate a basic understanding of the various uses and management of information systems in organizations and inability to identify the roles of key personnel in systems analysis and design.

5. Prior knowledge and / or Skills

5.1 Assumed Skills

Students are assumed to have acquired the skills as taught in BSA101 (Business Information Systems) and BSA102 (Information Modelling & Infrastructures).

Students are also assumed to have a working knowledge of the Microsoft Office suite, and the ability to gather and evaluate information from the Internet.

6. Texts, References and Learning Resources

6.1 Prescribed text

Valacich, J., George, J. & Hoffer, J. (2006) *Essentials of Systems Analysis and Design 3rd Edition*, Prentice-Hall, New Jersey.

6.2 Recommended for all Information Systems units

Dwyer J. (2006) *The Business Communication Handbook 7th Ed*, Prentice-Hall, Frenchs Forest, NSW.

6.3 Further Learning resources

Available Online at: www.prenhall.com/valacich Click the Student option to access various online resources including some online test items.

6.4 Access to information technology

Access for students to computer laboratory and library resources will be advised by the IEN-SFU administration.

7. Teaching arrangements

The teaching is grouped into 13 modules which include 13 lectures, 10 directed independent learning activities, and 12 tutorials.

Lectures and workshops times and locations will be advised by the IEN-SFU administration.

7.1 Lecture Schedule

Module	Lecture Topic	Textbook Readings
1	Introduction to Systems Analysis & Design	
2	The Systems Development Environment	Valacich – Chapter 1
3	Managing the Information Systems Project	Valacich – Chapter 2
4	Systems Planning and Selection	Valacich – Chapter 3
5	Determining System Requirements	Valacich – Chapter 4
6	Structuring System Requirements: • Process Modelling	Valacich – Chapter 5
7	Structuring System Requirements: • Conceptual Data Modelling	Valacich – Chapter 6
8	Selecting the Best Alternative Design Strategy	Valacich – Chapter 7
9	Designing the Human Interface	Valacich – Chapter 8
10	Systems Implementation and Operation	Valacich – Chapter 10
11	Object-Oriented Analysis and Design	Valacich – Appendix A
12	Alternative approaches to systems development	Valacich – Appendix B
13	Revision	

7.2 Workshop Schedule

Module	Topic	Textbook Readings
1	No workshop	
2	The Systems Development Environment	Chapter 1 - Pine Valley Furniture case study
3	The Broadway Entertainment Company	Chapter 2 - BEC case study
4	Initiating & planning a Web-based Customer Relationship Management System (W-CRM)	Chapter 3 - BEC case study
5	Determining Requirements for the W-CRM	Chapter 4 - BEC case study
6	Process Modelling for the W-CRM	Chapter 5 - BEC case study
7	Conceptual Data Modelling for the WCRM	Chapter 6 - BEC case study
8	Formulating a Design Strategy for the WCRM	Chapter 7 - BEC case study
9	Designing the Human Interface for the WCRM	Chapter 8 - BEC case study
10	Designing a Testing Plan for the WCRM	Chapter 10 - BEC case study
11	Group problem solving & the Role of the Systems Analyst	Review - All BEC case studies
12	Computer Lab session: Drawing process models using an appropriate diagramming program	Chapter 5 - Process Modelling
13	Question & Answer session on the exam	

8. Learning Expectations

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.

It is expected that students will familiarise themselves with the access and use of the WebCT Vista system operated by the University for the electronic delivery of course materials, and for various forms of communication. Unless the communication is urgent or specific to an individual student, information about the BSA201 unit will be available from WebCT Vista.

It is expected that students will check for 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.

8.1 Student Expectations of the Unit

Students enrolled in this Unit may reasonably expect the following:

1. To have all appropriate course material available electronically (on a week-by-week basis) via the University WebCT Vista system.
2. 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.
3. Subject to availability, to be able to discuss such issues in person with the lecturer or tutor.
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 WebCT Vista, or if appropriate, via email.

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

8.2 Learning Strategies

If you need assistance in preparing for study please refer to your tutor or lecturer. For additional information refer to the UTas Assignment Help website:

www.utas.edu.au/assignmenthelp/

If you will be using WebCT Vista for the first time and would like some information on how to use WebCT Vista refer to the UTas Learning Online website:

www.utas.edu.au/coursesonline/

8.3 Specific Attendance / Performance Requirements

Participation and the active contribution of all students in their allocated workshop will be monitored for assessment purposes (see section on Assessment details).

9. Assessment

9.1 Assessment Summary

Component	Task / Type	Weight / Value	Due Dates
Assignment 1	Directed Independent Learning (Individual)	20%	Modules 2 - 11 (inclusive)
Assignment 2	Systems Analysis Report (Group)	20%	Thursday, 25 th October 2007
Assignment 3	Systems Specifications Report (Group)	20%	Thursday, 13 th December 2007
Exam	(Individual)	40%	To be advised

9.2 How your Final Result is Determined

In order to pass a unit, the School of Information Systems expects that students:

- Achieve a total of at least 45% in the continuing assessment of the unit; and
- Achieve a total of at least 45% in the examination component of the unit; and
- Achieve a total mark of at least 50% in the total assessment of the unit.

9.3 Submission of Assignments

Students must submit assignments for the unit by the specified dates, unless prior approval has been granted via an assignment extension form, at least 24 hours before the assignment is due to be submitted.

Every assessment task has a due date and method of submission. These due dates and methods of submission must be adhered to.

Notes:

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

- Once submitted to WebCT Vista, submitted files **MUST** be opened and checked by the student to ensure that correct submission of the file has been undertaken.
- Students are expected to notify their Lecturer by email **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.

9.4 Requests for Extensions

Extensions will be given only under the following conditions:

- Illness: A medical certificate must be presented to the tutor before the due date or as soon as possible after the due date.
- The lecturer / tutor will consider extensions in which the student is unable to submit due to other exceptional circumstances. The lecturer / tutor will email the lecturer in charge for special permission for an extension for the student. The lecturer / tutor will advise the student if they have been given an extension.

Any extension granted will have a new submission due date and time.

Assignments that are not submitted by the due date and time will incur the following penalties:

9.5 Penalties 惩罚

Assignments (including those for which extensions have been granted) that are not submitted by the due date and time will incur 10% (of mark achieved) per 24 hours or part thereof for late submissions.

每迟交作业一天，将扣除该门作业成绩的10%，经同意延长提交作业除外。

9.6 Assessment Details

Assignment Task 1	
Title	Directed Independent Learning
Task description	This is an individual assignment that requires logging onto WebCT Vista to complete a series of True / False and Multiple-choice questions that relate to the textbook chapter and case study for each module.
Task length	Not Applicable
Links to unit's learning outcomes	Learning Outcomes: 1, 2, 5
Assessment criteria / guidelines	A series of True / False and Multiple-choice questions which allows students to demonstrate knowledge of the topics covered in the corresponding module, and to familiarise themselves with the module's case study.
Due Date	Modules 2 - 11 (inclusive)

Assessment 2	
Task description	This is a group assignment that requires a report to demonstrate understanding of core information systems concepts, including systems concepts and systems thinking, various techniques used in systems planning and systems requirements analysis. It also requires application of the concepts in a given case study.
Task length	Approximately 2,500 words
Links to unit's learning outcomes	Learning Outcome: 1, 2, 3, 5
Assessment criteria / guidelines	A business report based on a case study which allows students to demonstrate knowledge of the topics covered in the above task description.
Due Date	Thursday, 25 th October 2007

Assessment Task 3	
Task description	This is a group assignment requiring a report to demonstrate knowledge of the techniques used for process and data modelling and understanding of good systems design practices through application in the case study used for assessment task 1.
Task length	Approximately 2,500 words
Links to unit's learning outcomes	Learning Outcome: 1, 3, 4, 5
Assessment criteria / guidelines	A business report with more technical details based on a case study which allows students to demonstrate knowledge of the topics covered in the above task description.
Due Date	Thursday, 13 th December 2007

Assessment Task 4	
Task description	<p>Final Examination: This is a <i>closed-book</i> examination that covers all the lecture and tutorial material delivered in the unit, as well as the textbook and any additional notes provided to the students.</p> <p>The examination will be a combination of multiple-choice questions, short answer questions, and a case study, designed to evaluate the students' understanding of systems analysis and design concepts and application skills.</p> <p>Note: Two A4 sides (one sheet of A4 paper with writing on both sides or two sheets of A4 paper with writing on one side of each sheet) of original handwritten notes (no photocopies) can be taken into the examination. The notes must be handed in with exam booklet.</p>
Task length	Two hours
Date	The final exam is conducted by the University Registrar in the formal examination period. You will be advised of the date, time, and place, by the IEN-SFU administration.

10. Academic Referencing

Student writers need to back up their ideas by referring to scholarly literature works of art and inventions that they have used. Failure to do so constitutes academic dishonesty (plagiarism), a matter considered by the University of Tasmania as a serious offence. It is important that students understand how to correctly refer to the work of others and maintain academic integrity.

The appropriate referencing style for this unit is the Harvard method. Please refer to: www.utas.edu.au/library/assist/gpoa/gpoa2.html

11. Plagiarism 抄袭(剽窃)

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 or 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:
www.utas.edu.au/tl/supporting/academicintegrity/index.html

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:
www.utas.edu.au/universitycouncil/legislation/

The University reserves the right to submit assignments to plagiarism detection software, and might then retain a copy of the assignment on its database for the purpose of future plagiarism checking.

抄袭是一种欺骗行为。任何把别人的思想，作品和发明擅自占为己有的行为均被视为抄袭。比如，引用有关权威的词句而对未其出处进行必要的说明，或者引用有关作者思想未作必要的注释，或者拷贝其他学生的作业。

刻意抄袭别人的作品为己用，是一种严重的错误，也是一种学术欺诈。学校将视情节给予罚款，降低或取消成绩，或者严重者将取消学籍。**有任何疑问请与有关人员联系。**

12. Additional Assistance

There is a range of University-wide support services available to you including Student Services, International Services and Learning Development. Please refer to the Current Students homepage at: www.utas.edu.au/students/

12.1 Help Resolving Concerns about this Unit

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 local Lecturer
- b) If you need more assistance, contact the Unit Coordinator via email.
- c) If an issue remains unresolved, the student should email the Head of School with full details of their concern.
- d) If the School's internal policy of complaints is unable to resolve an issue, students should consult Ordinance 8: Student Complaints, for further direction.

13. Unit Feedback

The University of Tasmania, on a regular basis, evaluates its teaching and learning environment through the Student Evaluation of Teaching and Learning (SETL) system. The University values feedback from students and from time to time you will be asked to complete a SETL evaluation for a unit of study.

For more information on SETL go to: www.utas.edu.au/tl/haveyoursay.html