



MONASH University
Information Technology

FIT4007
Advanced topics in information systems

Unit Guide

Semester 2, 2012

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

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FIT4007 Advanced topics in information systems - Semester 2, 2012

This unit will develop students capabilities to undertake research in the information systems field. Students will learn various research methods and study published research papers in which these research methods have been used. In particular, students will learn to evaluate how well the research methods have been used in published research papers. Students will also develop an understanding of some of the exciting, leading-edge research in the information systems field. This understanding may enable students to identify research topics that they would like to pursue, perhaps in an honours, masters, or PhD thesis.

Mode of Delivery

- Clayton (Day)
- South Africa (Day)

Contact Hours

3 hr seminar/wk

Workload

Students will be expected to spend a total of 12 hours per week during semester on this unit as follows:

- weekly three-hour seminar;
- on average, up to nine hours of personal study each week to complete reading assignments, prepare for the weekly seminar, and complete assessment material.

Unit Relationships

Co-requisites

FIT4005

Chief Examiner

Professor Ron Weber

Campus Lecturer

Clayton

Ron Weber

South Africa

Dr Braam Van Der Vyver

Academic Overview

Outcomes

At the completion of this unit students will have:

- developed capabilities to undertake research in the information systems field;
- learned various research methods and studied published research papers in which these research methods have been used;
- learned to evaluate how well the research methods have been used in published research papers.

Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:
 - a. engage in an internationalised world
 - b. exhibit cross-cultural competence
 - c. demonstrate ethical values

critical and creative scholars who:

- a. produce innovative solutions to problems
- b. apply research skills to a range of challenges
- c. communicate perceptively and effectively

Assessment Summary

Examination (3 hours): 50%; In-semester assessment: 50%

Assessment Task	Value	Due Date
Critical evaluation of a published paper in an information systems journal.	35%	14 September 2012, 5 pm
Seminar participation	15% (consisting of the average of a student's best 8 participation scores).	At the beginning of each week's class.
Examination 1	50%	To be advised

Teaching Approach

Seminars

Students must undertake assigned readings prior to the weekly seminars and contribute actively to class discussion as a way of learning the subject matter of the unit.

Feedback

Our feedback to You

Types of feedback you can expect to receive in this unit are:

- Graded assignments with comments
- Other: You will receive feedback each week on the quality of your participation in the class discussion. You will also receive written comments on your mid-semester assignment. The solution to the assignment will be discussed in class after all assignments have been graded and returned to students. Students should also feel free to discuss their performance in class with their lecturer at any time during the semester.

Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see:

<http://www.monash.edu.au/about/monash-directions/directions.html>

<http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html>

Previous Student Evaluations of this unit

Previous student feedback has indicated they are very satisfied with this unit and that they find the content of the unit to be challenging but useful in developing their research capabilities. At the request of students, in 2011 the class time was increased from two hours per week to three hours per week. Students indicated they thought a three-hour class time was much better than a two-hour class time.

If you wish to view how previous students rated this unit, please go to

<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

All reading materials used in the unit will be available online through the Moodle web site for the unit.

Examination material or equipment

The final examination is open book. All reading materials used in the unit can be taken into the final examination if a student so wishes.

Unit Schedule

Week	Activities	Assessment
0	Please read the Week-1 readings prior to coming to class.	No formal assessment or activities are undertaken in week 0.
1	Introduction: Choosing the Research Problem	Assessment task 2: weekly seminar participation.
2	Theory Building-I	Assessment task 2: weekly seminar participation.
3	Theory Building-II	Assessment task 2: weekly seminar participation.
4	Experiments-I	Assessment task 2: weekly seminar participation.
5	Experiments-II	Assessment task 2: weekly seminar participation
6	Experiments-III	Assessment task 2: weekly seminar participation.
7	Case Study Research-I	Assessment task 2: weekly seminar participation.
8	Case Study Research-II	Assessment Task 1: Critical evaluation of a published paper in an IS journal due 14th September 2012 at 5pm. Assessment task 2: weekly seminar participation.
9	Design Science Research-I	Assessment task 2: weekly seminar participation.
10	Design Science Research-II	Assessment task 2: weekly seminar participation.
11	Action Learning-I	Assessment task 2: weekly seminar participation.
12	Action Learning-II	Assessment task 2: weekly seminar participation.
	SWOT VAC	No formal assessment is undertaken SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu>)

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at

<http://lib.monash.edu/tutorials/citing/>

Assessment Tasks

Participation

• Assessment task 1

Title:

Critical evaluation of a published paper in an information systems journal.

Description:

You will be asked to evaluate the quality of a paper published in one of the information systems journals. Based on the readings you have undertaken in the first part of the semester, you should point out the strengths and weaknesses of the paper.

Weighting:

35%

Criteria for assessment:

The criteria used to assess the assignment are:

1. Quality of your evaluation of the researchers' choice of problem.
2. The quality of rhetoric used by the researchers to motivate the choice of the problem they have addressed.
3. Quality of your evaluation of the theory and propositions provided by the researchers.
4. Quality of your evaluation of the research method used by the researchers.
5. Quality of your presentation, grammar, and style.

Due date:

14 September 2012, 5 pm

Remarks:

Assignment must be submitted electronically via the MUSO web site for FIT4007.

Late penalty: One mark will be deducted for each day (or part thereof) that the assignment is late.

• Assessment task 2

Title:

Seminar participation

Description:

Students are expected to actively participate in and from time to time lead the class discussion. When students are responsible for leading the class discussion, they should prepare a brief handout (maximum one page) identifying the strengths and weaknesses of the paper to be read by the class. They should make sufficient copies of this handout to give to each member of the class at the start of the discussion on the paper.

Weighting:

15% (consisting of the average of a student's best 8 participation scores).

Criteria for assessment:

The "ability to contribute to a structured discussion of key IS issues" is one of the objectives of FIT4007.

Each week the lecturer will assess the contribution of each student based on:

- (a) the student's understanding of the readings that have been assigned,
- (b) the student's insights in terms of the quality of the assigned readings, and
- (c) the extent to which the student contributes constructively to the class discussion.

The seminar participation mark will be the average of a student's best eight participation scores. Students will be notified of their participation mark each week and their overall participation mark in Week 12. A copy of the assessment proforma that will be used is available on this web site.

Due date:

At the beginning of each week's class.

Examinations

- **Examination 1**

Weighting:

50%

Length:

3 hours

Type (open/closed book):

Open book

Electronic devices allowed in the exam:

None

Remarks:

Critical evaluation of a paper published in an information systems journal.

Assignment submission

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html>) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <http://www.infotech.monash.edu.au/resources/student/forms/>. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process:

<http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html>.

Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at:

<http://policy.monash.edu.au/policy-bank/academic/education/index.html>

Key educational policies include:

- Plagiarism
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html>)
- Assessment
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-p>)
- Special Consideration
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h>)
- Grading Scale
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html>)
- Discipline: Student Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html>)
- Academic Calendar and Semesters (<http://www.monash.edu.au/students/key-dates/>);
- Orientation and Transition (<http://www.infotech.monash.edu.au/resources/student/orientation/>);
and
- Academic and Administrative Complaints and Grievances Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy>)
- Codes of Practice for Teaching and Learning
(<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea>)

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at www.monash.edu.au/students. For Sunway see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>

The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to <http://www.lib.monash.edu.au> or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at <http://www.lib.monash.edu.my/>. At South Africa visit <http://www.lib.monash.ac.za/>.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: <http://monash.edu/equity-diversity/disability/index.html>;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway

Reading list

Week 1: Introduction; Choosing the Research Problem

Locke, K., and Golden-Biddle, K. (1997). Constructing opportunities for contribution: Structuring intertextual coherence and “problematizing” in organizational studies. *Academy of Management Journal*, 40 (5), 1023-1062.

Week 2: Theory Building-I

Gregor, S. (2006). The nature of theory in information systems. *MIS Quarterly*, 30 (3), 611-642.

Weber, R. (2012). Evaluating and developing theories in the information systems discipline. *Journal of the Association for Information Systems*, 13 (1), 1-30. (Read up to the end of Section 4 of Weber’s paper).

Week 3: Theory Building-II

Griffith, T.L., Sawyer, J.E., & Neale, M.A. (2003). Virtualness and knowledge in teams: Managing the love triangle of organizations, individuals, and information technology. *MIS Quarterly*, 27 (2), 265-287.

Weber, R. (2012). Evaluating and developing theories in the information systems discipline. *Journal of the Association for Information Systems*, 13 (1), 1-30. (Read from Section 5 to the end of Weber’s paper. Please check the validity of Weber’s analysis of Griffith et al.’s paper).

Week 4: Experiments-I

Experimental design reading from Web:

<http://www.socialresearchmethods.net/kb/contents.php>

Read the “Design” section *only* of this e-book up to but not including the subsection on “Hybrid Experimental Designs.”

Week 5: Experiments-II

Experimental design reading from Web:

<http://www.socialresearchmethods.net/kb/contents.php>

Read the subsections on “Construct Validity” and Reliability” *only* under the “Measurement” section of this e-book. Omit the subsubsection on “Pattern Matching for Construct Validity” under the subsection “Construct Validity.”

Week 6: Experiments-III

Allen, G.N., & March, S.T. (2006). The effects of state-based and event-based data representation on user performance in query formulation tasks. *MIS Quarterly*, 30 (2), 269-290.

Adipat, B., Zhang, D, and Zhou, L. (2011). The effects of tree-view based presentation adaptation on mobile web browsing. *MIS Quarterly*, 35 (1), 99-121.

Week 7: Case Study Research-I

Other Information

Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14 (4), 532-550.

Klein, H.K. & Myers, D. (1999). A set of principles for conducting and evaluating interpretive field studies in information systems. *MIS Quarterly*, 23 (1), 67-94.

Week 8: Case Study Research-II

Sarker, S., & Lee, A.S. (2006). Does the use of computer-based BPC tools contribute to redesign effectiveness? Insights from a hermeneutic study. *IEEE Transactions on Engineering Management*, 53 (1), 130-145.

Chua, C.E.H., Lim, W-K., Soh, C., and Sia, S.K. (2012). Enacting clan control in complex IT projects: A social capital perspective. *MIS Quarterly*, 36 (2), 577-600.

Week 9: Design Science Research-I

Hevner, A.R., March, S. T., Park, J., & Ram, S. (2004). Design science in information systems research. *MIS Quarterly*, 28 (1), 75-106.

Gregor, S., & Jones, D. (2007). The anatomy of a design theory. *Journal of the Association for Information Systems*, 8 (5), 312-335.

Week 10: Design Science Research-II

Arnott, D. (2006). Cognitive biases and decision support systems development: A design science approach. *Information Systems Journal*, 16 (1), 55-78.

Albert, T.C., Goes, P.B. & Gupta, A. (2004). GIST: A model for design and management of content and interactivity of customer-centric web sites. *MIS Quarterly*, 28 (2), 161-182.

Week 11: Action Learning-I

Davidson, R.M., Martinsons, M.G., & Kock, N. (2004). Principles of canonical action research. *Information Systems Journal*, 14, 65-86.

Mathiassen, L., Chiasson, M., and Germonprez, M. (2012). Style composition in action research publication. *MIS Quarterly*, 36 (2), 347-363.

Week 12: Action Learning-II

DeLuca, D., and Valacich, J.S. (2006). Virtual teams in and out of synchronicity. *Information Technology & People*, 19 (4), 323 – 344.

Braa, J., Monteiro, E., & Sahay, S. (2004). Networks of action: Sustainable health information systems across developing countries. *MIS Quarterly*, 28 (3), 337-362.