



**MONASH** University  
Information Technology

**FIT4007**  
**Advanced topics in information systems**

**Unit Guide**

**Semester 2, 2014**

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# **FIT4007 Advanced topics in information systems - Semester 2, 2014**

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**

- Caulfield (Day)
- South Africa (Day)

## **Workload Requirements**

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:

- One 3-hour seminar

(b.) Additional requirements (all students):

- A minimum of 9 hours independent study per week for completing lab and project work, private study and revision.

## **Additional workload requirements**

The 9 hours of independent study each week should include time spent completing reading assignments, preparing for the weekly seminar, and completing assessment material.

## **Unit Relationships**

### **Co-requisites**

FIT4005

### **Chief Examiner**

Dr Caddie Gao

## **Campus Lecturer**

### **Caulfield**

**Caddie Gao**

### **South Africa**

**Braam Van Der Vyver**

## **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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

[www.monash.edu.au/about/monash-directions/](http://www.monash.edu.au/about/monash-directions/) and on student evaluations, see:  
[www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.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. No changes have been made for this semester.

If you wish to view how previous students rated this unit, please go to  
<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

# **Academic Overview**

## **Learning Outcomes**

At the completion of this unit, students should be able to:

- undertake research in the information systems field;
- explain various research methods used in the information systems field;
- evaluate how well research methods have been used in published research papers.

## 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 2: weekly seminar participation.  |
| 9    | Design Science Research-I                                | Assessment task 1: critical evaluation of a published paper in an IS journal due 26 September 2014, 5pm. Assessment task 2: weekly seminar participation.   |
| 10   | Design Science Research-II                               | Assessment task 2: weekly seminar participation.  |
| 11   | Action Research-I  | Assessment task 2: weekly seminar participation.  |
| 12   | Action Research-II                                       | Assessment task 2: weekly seminar participation.  |
|      | SWOT VAC   | No formal assessment is undertaken in SWOT VAC  |
|      | Examination period                                       | LINK to Assessment Policy:<br><a href="http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html">http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html</a> |

\*Unit Schedule details will be maintained and communicated to you via your learning system.

## 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.

## Assessment Summary

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

| <b>Assessment Task</b>   | <b>Value</b>  | <b>Due Date</b>                       |
|--|---|---------------------------------------|
| Critical evaluation of a published paper in an information systems journal | 35%   | 26 September 2014, 5pm                |
| 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                         |

# Assessment Requirements

## Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-hurdles>)

Academic Integrity - Please see resources and tutorials at

<http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/>

## 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:**

26 September 2014, 5pm

#### • 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.



## Assessment Requirements

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 the Moodle-based unit website.

**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.

## Learning resources

### 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.

## Assessment Requirements

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**

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.

Monash Library Unit Reading List (if applicable to the unit)  
<http://readinglists.lib.monash.edu/index.html>

Faculty of Information Technology [Style Guide](#)

## **Feedback to you**

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback after official results have been published. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see <http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html>

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.

## **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.monash.edu.au/exams/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.

## **Assignment submission**

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-pla>) 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). Please note that it is your responsibility to retain copies of your assessments.

## **Online submission**

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

## **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.

## 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:

[www.policy.monash.edu.au/policy-bank/academic/education/index.html](http://www.policy.monash.edu.au/policy-bank/academic/education/index.html)

Key educational policies include:

- Student Academic Integrity Policy and Student Academic Integrity: Managing Plagiarism and Collusion Procedures ;  
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.h>
- Assessment in Coursework Programs;  
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-po>
- Special Consideration;  
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.ht>
- 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/dates/>
- Orientation and Transition; <http://intranet.monash.edu.au/infotech/resources/students/orientation/>
- Academic and Administrative Complaints and Grievances Policy;  
<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.h>

### Faculty resources and policies

Important student resources including Faculty policies are located at

<http://intranet.monash.edu.au/infotech/resources/students/>

### Graduate Attributes Policy

<http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.h>

### Student Charter

[www.opq.monash.edu.au/ep/student-charter/monash-university-student-charter.html](http://www.opq.monash.edu.au/ep/student-charter/monash-university-student-charter.html)

### 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 <http://www.monash.edu.au/students>. For Malaysia see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>.

## Monash University Library

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

## Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

- Website: <http://www.monash.edu/equity-diversity/disability/index.html>
- Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Community Services at 03 55146018 at Malaysia
- Email: [dlu@monash.edu](mailto:dlu@monash.edu)
- Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Malaysia Campus