FIT4005
IT research methods

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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FIT4005 IT research methods - Semester 2, 2012

This unit introduces students to a variety of issues, concepts, methods and techniques associated with IT research. Skills developed and knowledge acquired from this unit will prepare students to conduct their own research, as well as to be knowledgeable consumers of others research.

Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

The workload commitment for on campus students for this unit is 12 hours per week. This includes:

- 2 hour lecture
- 2 hour workshop/tutorial
- and a minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

Unit Relationships

Prohibitions

ITW4001, IMS5036, IMS4036, BUS5000, CSE4910, GCO4010, CSE4650

Prerequisites

Students must be enrolled in an FIT Honours degree, Masters degree or Research degree. Foundation knowledge in computer science, business information systems or information technology and systems fundamentals is assumed.

Chief Examiner

Professor Geoff Webb

Campus Lecturer

Caulfield

Professor Frada Burstein

Consultation hours: After the lecture, or for appointment email frada.burstein@monash.edu
South Africa

Jacques Steyn
Academic Overview

Outcomes

At the completion of this unit students will have -
A knowledge and understanding of:

- basic research concepts, major philosophical foundations (theory, framework, paradigm, scientific method and methodologies in general);
- research methods and techniques relevant to IT research;
- key issues in IT research;
- methods of argument analysis;
- how to design research;
- how to evaluate research and peer review procedures;
- the process of reviewing research literature on a specific topic;
- ethical research practices.

Developed attitudes that enable them to:

- have confidence in themselves as informed consumers of published research, able to critically evaluate the relative quality and merits of reported research findings;
- have confidence in their ability to undertake independent research and to complete a thesis;
- have an awareness of the ethical issues that arise in the design and implementation of research.

Developed the skills to:

- match research tools and methods with research needs;
- write effective research papers;
- evaluate research ideas and designs;
- collect and analyse relevant data.

Demonstrated the communication skills necessary to:

- communicate research ideas effectively in oral and written form;
- assess research ideas and designs.

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

In-semester assessment (assignments and class tests): 100%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1: critical analysis of published research</td>
<td>30%</td>
<td>Week 6, Friday, 5pm</td>
</tr>
<tr>
<td>Assignment 2: Practical work portfolio</td>
<td>30%</td>
<td>Complete all by week 11, Friday 5pm</td>
</tr>
<tr>
<td>Assignment 3: Mini-research</td>
<td>30%</td>
<td>Week 14, Friday 5pm</td>
</tr>
<tr>
<td>Peer-review assessment of unit participation</td>
<td>10% consisting of the average of a student's best 4 participation scores</td>
<td>From Week 2 to Week 12</td>
</tr>
<tr>
<td>Examination 1</td>
<td>There is no formal examination for this unit</td>
<td>To be advised</td>
</tr>
</tbody>
</table>

Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.

Feedback

Our feedback to You

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

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Solutions to tutes, labs and assignments
- Other: peer-assessment for tutorial contribution

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.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html
Previous Student Evaluations of this unit

The sequence and arrangement of topics has been changed from last semester. The aim is to more clearly identify the major research strategies. The objectives and assessment strategy of the unit have not been changed.

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.

Students may be required to use Web browsers, text processing, spread sheets and slide presentation packages to complete their assignments. These are available in University computer labs.
# Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>The Nature of Research</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Literature Analysis/workshop on literature search</td>
<td>Assessment Task 4: Weekly assessment from Week 2 to Week 12</td>
</tr>
<tr>
<td>3</td>
<td>Research in Information Technology: major methods/workshop on research questions</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Design Research / workshop: Writing a research proposal</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Experiments / workshop on oral presentations</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Surveys</td>
<td>Assignment 1 due Monday by 5pm, Melbourne time</td>
</tr>
<tr>
<td>7</td>
<td>Case Studies</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Introduction to Data Analysis/workshop on literature review</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Quantitative Data Analysis</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Correlation and Regression</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Qualitative Data Collection and Analysis</td>
<td>Assignment 2 due Friday 5pm, week 11</td>
</tr>
<tr>
<td>12</td>
<td>Communication of Research</td>
<td>Assignment 3 presentations; report due Friday 5pm, 2012 - Week 14</td>
</tr>
<tr>
<td>SWOT VAC</td>
<td></td>
<td>No formal assessment is undertaken in SWOT VAC.</td>
</tr>
</tbody>
</table>

*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

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at http://lib.monash.edu/tutorials/citing/

Assessment Tasks

Participation

Participation in the tutorials will be peer-assessed and these marks will be aggregated into 10% of total mark for the unit.

• **Assessment task 1**

  **Title:**
  Assignment 1: critical analysis of published research

  **Description:**
  In this assignment the students will provide a critical analysis of the research objectives and methods for an information technology research based on published material. Includes 25% written paper and 5% presentation

  **Weighting:**
  30%

  **Criteria for assessment:**
  The assignment will be assessed by:

  ♦ clarity and logic of the structure,
  ♦ level of critical analysis,
  ♦ referencing,
  ♦ standard of English expression,
  ♦ and quality of conclusions.

  **Due date:**
  Week 6, Friday, 5pm

• **Assessment task 2**

  **Title:**
  Assignment 2: Practical work portfolio

  **Description:**
  In this assignment the students will have to perform a number of detailed exercises with data on statistical and qualitative analyses.

  **Weighting:**
  30%

  **Criteria for assessment:**
  Each of the tasks in this assignment will be awarded marks based on the ability to correctly perform the analysis/test, and interpret the findings (what do the findings indicate).

  **Due date:**
Assessment Requirements

Complete all by week 11, Friday 5pm

• Assessment task 3

Title: Assignment 3: Mini-research
Description: This is a mini-project task, which can be performed by a group of 2-3 students.
The outcome includes presentation about your mini-project (5%) and a research paper based on your mini-project (25%).
Weighting: 30%
Criteria for assessment: The assignment will be assessed by:
♦ clarity and logic of the structure,
♦ level of critical analysis,
♦ referencing,
♦ standard of English expression,
♦ and quality of conclusions.
Due date: Week 14, Friday 5pm

• Assessment task 4

Title: Peer-review assessment of unit participation
Description: Weekly participations in lectures and tutorials will be assessed by peer-reviews
Weighting: 10% consisting of the average of a student's best 4 participation scores
Criteria for assessment: Quality of individual preparation and participation, assistance and encouragement of activities of other students will be assessed by peers. Students will be provided with the forms to record their perception of the performance of their peers in the class during the lectures and tutorials.
Due date: From Week 2 to Week 12
Remarks: This assessment is based on the portfolio of individual contributions. Six sessions will be specifically nominated to be performed as part of this assessment.

Examinations

• Examination 1

Weighting: There is no formal examination for this unit
Length: Type (open/closed book): Electronic devices allowed in the exam: None
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 MOODLE site for this unit, which you can access via links in the my.monash portal. Standard assignment cover sheet has to be signed and submitted with each written assignment to confirm the proper acknowledgement of the resources used in the text.

Extensions and penalties

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


Returning assignments

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

Referencing requirements

All assignments should use APA style for referencing.
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)
- Special Consideration (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html)
- 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
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-and-learning.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 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


Lists of additional readings will be provided for each lecture. See Moodle for further details.