MONASH University
Information Technology

FIT4005
IT research methods

Unit Guide

Semester 2, 2011

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, 2011

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 David Arnott

Campus Lecturer

Caulfield

David Arnott

Joze Kuzic

Academic Overview

Learning Objectives

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%

Assessment Task	Value	Due Date
Assignment 1 - Literature review and presentation	30% (Report 25%, Presentation 5%)	7 September 2011
Assignment 2 - Development and analysis of statistical tests	30%	5 October 2011
Class Test 1	20%	24 August 2011
Class Test 2	20%	19 October 2011

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

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

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

Required Resources

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

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	The Nature of Research	
2	Literature Analysis	
3	Experiments	
4	Surveys	
5	Communication of Research	Class Test 1 due 24 August 2011
6	Analysis of Quantitative Data 1	
7	Analysis of Quantitative Data 2	Assignment 1: Literature Review and Presentation due 7 September 2011
8	Analysis of Quantitative Data 3	
9	Analysis of Quantitative Data 4	
10	Case Studies	Assignment 2 due 5 October 2011
11	Analysis of Qualitative Data	
12	Design Science Research	Class Test 2 due 19 October 2011
	SWOT VAC	No formal assessment is undertaken in 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 Tasks

Participation

- **Assessment task 1**

  Title:

  Assignment 1 - Literature review and presentation

  Description:

  In this assignment students prepare a literature review on an agreed IT research topic. They will also do a presentation of their review to the class.

  Weighting:

  30% (Report 25%, Presentation 5%)

  Criteria for assessment:

  The review report will be assessed by:

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

  The presentation will be assessed by:

  - the logical organization of the presentation,
  - review content,
  - standard of English,
  - ability to address questions,
  - and media quality.

  Detailed marking guides for both the presentation and the review report are available on the unit Moodle site.

  Due date:

  7 September 2011

- **Assessment task 2**

  Title:

  Assignment 2 - Development and analysis of statistical tests

  Description:

  In this assignment the students will have to perform:

  1. Non-parametric correlation analysis to find out the relationships, if any, between the variables provided in the data set; and provide interpretation of the findings in a report.
  2. KW test to find out the differences, if any, among different groups of participants and the whole population; and provide interpretation of the findings in a report.
  3. The Sign test, to find out the changes, if any, within the same group of participants pre and post testing; and provide interpretation of the findings in a report.

  Weighting:

30%
Criteria for assessment:
Each of the 3 tasks in this assignment will be awarded up to 10 marks based on the ability to correctly perform the analysis/test, and interpret the findings (what do the findings indicate).
Due date:
5 October 2011

- **Assessment task 3**

Title:
Class Test 1
Description:
The first class test will examine students' understanding of experiments and surveys.
Weighting:
20%
Criteria for assessment:
Quality of answers to questions (demonstrates an understanding of learning material).
Due date:
24 August 2011

- **Assessment task 4**

Title:
Class Test 2
Description:
The second class test will examine students' understanding of case studies and design science research.
Weighting:
20%
Criteria for assessment:
Quality of answers to questions (demonstrates an understanding of learning material).
Due date:
19 October 2011

Examinations

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).

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

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)
- Assessment
  (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.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 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. 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://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html;
- Telephone: 03 9905 5704 to book an appointment with a DLO;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus.

READING LIST:

Zikmund, WG, Babin BJ, Carr JC, Griffin M. (2010). *Business Research Methods* (8th edition) South-Western (Cengage Learning). ISBN-13: 978-0-324-32062-6
Creswell, John W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd Edition). ISBN: 9781412965576
Neuman, W. Lawrence Neuman (2006). *Social Research Methods: Quantitative and Qualitative*

Other Information

Approaches, Pearson.

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