FIT5190
Introduction to IT research methods

Unit Guide

Semester 1, 2013

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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FIT5190 Introduction to IT research methods - Semester 1, 2013

This unit introduces students to IT research. Specifically, it introduces major research methods that are used by IT researchers including experiments, surveys, case studies, and design science. It also addresses the collection and analysis of quantitative and qualitative data. Students will learn how to effectively communicate 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.

Contact Hours

Two hours of lecture and two hours of studio/tutorial per week.

Workload requirements

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

Lectures: 2 hours per week
Tutorials: 2 hours per week per 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.

Chief Examiner

Associate Professor Chung-Hsing Yeh

Campus Lecturer
Academic Overview

Learning Outcomes

On completion of this unit students will be able to understand:

• the major philosophies and principles of research;
• the major research methods used in IT research;
• when a particular method is appropriate for a particular project;
• how to collect and analyse quantitative and qualitative research data;
• how to communicate research findings to a variety of audiences;
• how to critically review research designs and literature.
# 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</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Research in Information Technology</td>
<td></td>
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<tr>
<td>4</td>
<td>Communicating Research and Oral Presentations</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Design Research and Writing Journal Papers</td>
<td></td>
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<tr>
<td>6</td>
<td>Experiments</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Surveys</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Case Studies and Research Publication Matters</td>
<td>Assignment 1 due 3 May 2013</td>
</tr>
<tr>
<td>9</td>
<td>Introduction to Data Analysis</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Quantitative Data Analysis</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Correlation and Regression</td>
<td>Assignment 2 due 24 May 2013</td>
</tr>
<tr>
<td>12</td>
<td>Qualitative Data Collection and Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken in SWOT VAC. Assignment 3 due 11 June 2013, Week 14</td>
</tr>
</tbody>
</table>

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

## 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 Review of Published Research</td>
<td>30%</td>
<td>3 May 2013</td>
</tr>
<tr>
<td>Assignment 2: Overview of a Research Project</td>
<td>40% (Research Project Report 30% and Class Oral Presentation 10%)</td>
<td>24 May 2013</td>
</tr>
<tr>
<td>Assignment 3: Research Project Evaluation</td>
<td>30%</td>
<td>11 June 2013</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.
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

• Assessment task 1

Title:
Assignment 1: Critical Review of Published Research

Description:
The purpose of the assignment is to learn about a significant area of IT research by undertaking a literature review. The aim of this assignment is to ensure that you are capable of critically analysing published research.

In this assignment, you will select a topic in IT research and conduct a critical review of the key published literature on the topic. Most of the literature will be journal and conference papers, but it could include books, book chapters, technical reports, blogs, white papers, and industry reports.

The topic for the review must be approved by the unit lecturer.

Weighting:
30%

Criteria for assessment:
The assignment will be assessed by:

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

Due date:
3 May 2013

• Assessment task 2

Title:
Assignment 2: Overview of a Research Project

Description:
Write an overview report of a research project and give a presentation about the research project suitable for use as a seminar talk.

Weighting:
40% (Research Project Report 30% and Class Oral Presentation 10%)
Assessment Requirements

Criteria for assessment:
The research project report (30%) will be assessed by:

- logic of structure,
- clarity of objectives and methodology,
- justification of novelty and contribution,
- referencing,
- standard of English expression,
- and quality of conclusions.

The class oral presentation (10%) will be assessed by a peer-review process.

Due date:
24 May 2013

• Assessment task 3

Title:
Assignment 3: Research Project Evaluation

Description:
Write and explain an evaluation plan for a research project. Students are strongly encouraged to write about a research project that they are conducting or intend to conduct.

Weighting:
30%

Criteria for assessment:
The assignment will be assessed by:

- clarity and logic of the evaluation plan,
- the degree to which the plan assesses whether the project achieves or fails to achieve its research aims,
- level of critical analysis,
- referencing, and
- standard of English expression.

Due date:
11 June 2013

Learning resources

Reading list


Additional readings will be provided for each lecture. See the unit Moodle site for further details.
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

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:

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/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.
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

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/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Graduate Attributes Policy http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.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 Sunway 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 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/.

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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 Sunway
Email: 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, Sunway Campus

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 and on student evaluations, see:
www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

In its first offering (2012) at the SEU-Monash Joint Graduate School in Suzhou, this unit has achieved a student evaluation score of 4.73 (out of 5) for the quality of the unit. Student feedback has shown that this unit is well structured and no changes are required for this semester. In particular, students are happy with the encouragement and helpful feedback they received from the lecturer for their active participation in this unit.

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