MONASH University **Handbook**

Unit

FIT2083 Communication and research in computer science

Overview

This unit equips students to be effective innovators and researchers in Computer Science. It introduces students to the issues, concepts, methods and techniques associated with IT research in general, but focuses on those most commonly used for research in Computer Science. It introduces students to professional practice and research ethics, the principles of research design, research methods and techniques of data collection and analysis appropriate to Computer Science. It covers oral and written communication skills.

Skills developed and knowledge acquired from this unit will prepare students to conduct and to communicate their own research, as well as to be knowledgeable consumers of others' research.

Faculty:
Faculty of Information Technology

Owning organisational unit:
Faculty of Information Technology

Study level:
Undergraduate

SCA band:
2

EFTSL:
0.125

Credit points:
6

Open to exchange or study abroad students?

No

Offerings

S1-01-CLAYTON-ON-(

Location: Clayton

Teaching period: First semester

Attendance mode: On-campus

Requisites

Prerequisite

→ MAT1841 6 CP

Continuous mathematics for computer science

OR

→ MTH1030 6 CP

Techniques for modelling

OR

→ MTH1035 6 CP

Techniques for modelling (advanced)

Prohibition

→ FIT4005 6 CP

Research **ion technology**

Contacts

Chief Examiner(s)

Associate Professo Alan Dorin

Email: alan.dorin@monash.edu

Offering(s):

- Applies to all offerings

Learning outcomes

On successful completion of this unit, you should be able to:

1. Review and critique Computer Science research literature, research design and reported findings;
2. Communicate research findings, orally and in writing, in research settings;
3. Explain the ethical and professional issues that may arise in research;

4. Recognise the main research methodologies of Information Technology research generally;

5. Describe the most common data collection and analysis methods used in Computer Science research;

6. Select and justify [illegible]rch methodology for tackling a specified Computer Science problem;

7. Explain the techn[illegible] socio-economic contexts that motivate research, and the implicatic[illegible]mes;

8. Plan, design and execute a simple research study.

Teaching approach

Peer assisted learning

Assessment

Task 0) What is research? Home exercise

Value %: 0

Task 1a) Propose a research question

Value %: 10

Task 1b) Motivate/justify a research question

Value %: 10

Task 2a) & 2b) Propose a research method and design a study

Value %: 10

Task 3) Pitch

Value %: 10

Task 4) Complete a research study, write, edit and submit your paper for review

Value %: 20

Task 5a) Review a research study and 5b) Refine a research paper

Value %: 30

Task 6a) & 6b) Present your work at a conference, and promote it

Value %: 10

Scheduled teaching activities

Applied sessions

Total hours: 24 hours

Offerings:

- Applies to all offerings

Workshops

Total hours: 24 hours

Offerings:

- Applies to all offerings

Workload req

Workload

Minimum total expected workload to achieve the learning outcomes for this unit is 144 hours per semester typically comprising a mixture of scheduled online and face to face learning activities and independent study. Independent study may include associated reading and preparation for scheduled teaching activities.

Learning resources

Required resources

There is no required prescribed textbook for this unit. Students are expected to read notes and references provided for each module prior to the start of each week's classes.

Recommended resources

Lists of recommended readings will be associated with individual weeks. See Moodle for further details.

Technology resources

Students should regularly check Moodle and their e-mails for announcements and other relevant communications.

Students may be required to use Web browsers, word processing (e.g., LaTeX, MicroSoft-Word), spread sheets and slide presentation packages to complete their assignments. These are available in University computer labs. If in doubt, discuss with the lecturer in advance.

Availability in areas of study

Advanced computer science