

ICT5201 Research Methodology and Data Analysis

Unit Description

This unit introduces students to fundamental areas of research methodology and data analysis. The unit begins with an introduction to the research process, identification of appropriate research questions and a consideration of the principles of research ethics. Students develop skills required for selecting appropriate quantitative and qualitative methodologies to answer applied research questions and skills for presenting, analysing, and interpreting data. Students demonstrate their understanding of research methodology by developing a research proposal to answer an applied research question important for industry. By the completion of the unit, students are equipped to undertake supervised research.

Credit Points	8 credit points
Duration	12 weeks (10 teaching weeks and 2 revision and assessment weeks)

Unit Learning Outcomes

On successful completion of this unit, students will be able to:

1. Define key elements of research and their interrelationships, including research design, ethics, data sampling, and data analysis.
2. Critically evaluate the literature and alternative research methodologies for answering applied research questions.
3. Identify and explain ethical issues that may arise in conducting applied research studies.
4. Appraise, critique, and synthesise the findings of previous research to justify an applied research question and a research methodology to investigate the research question.