

## PRJ5106 Research Methodology and Data Analysis

### Unit Description

This unit introduces students to fundamentals of research methodologies and analytical techniques for answering a real-world research question. This will involve learning about principles of scientific research process including problem formulation, research design, data collection, data analysis, reporting and ethical consideration. Students will also be introduced to the use of statistical tool (e.g., Excel) to analyse data and interpret results. Additionally, students will demonstrate their understanding and skills gained from the unit and apply what they have learned through the creation of a research proposal. By the completion of this unit, students will be equipped to undertake supervised research.

<b>Credit Points</b>	8 credit points
<b>Duration</b>	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 collection and analysis.
2. Select, evaluate and justify data collection and data analysis techniques.
3. Identify and explain ethical issues that may arise in conducting applied research studies.
4. Appraise, critique and synthesize the findings of previous research to justify research question and a research methodology to investigate the research question.
5. Develop a comprehensive research proposal incorporating all essential components.