



2027 Summer Research Project Template

Help us present your project in a way that connects with the right students. Thoughtful, engaging descriptions tend to attract stronger and more suitable applications. Thank you for putting a project forward - these programs rely on your contribution, and we couldn't do it without you.

Section	Description
Project title	Modelling grief and trauma: A review of computational and quantitative approaches
Hours & delivery	Hours of engagement: 6 weeks, ~20 hours per week Delivery mode: hybrid or online. The project involves working with databases accessed through the UQ Library, so strong and reliable internet access is essential.
About the project (150–250 words)	Mental health researchers increasingly use computational and quantitative modelling approaches to understand how psychological difficulties develop and are maintained. These methods can range from analyses of intensive longitudinal data, such as daily diary and ecological momentary assessment studies, through to computer simulations that test how psychological processes interact over time. These approaches offer new ways to evaluate and refine theoretical models of grief, trauma, and adaptation to major life events, and potentially identifying modifiable mechanism to improve outcomes for those who are struggling. This project will undertake a literature review of computational and quantitative modelling approaches that may be used to understand grief, trauma, and adaptation to major life events. While I am interested in the potential of dynamic systems and agent simulations, the review will examine the range of available approaches and the types of data that are required to implement them. As part of the project, the summer scholar will assist with literature searches, screening and organising research articles, and summarising key methodological features. The goal is to identify feasible methods for studying grief and trauma. The project will also provide experience in evidence synthesis, research methods, and emerging computational approaches in psychology.
What you'll do (100–150 words)	The summer scholar will assist with literature searches, screening and organising research articles, summarising key methodological features of published studies, and investigating measurement tools. The student will also meet regularly with the supervisor to discuss findings and consider the strengths, limitations, and practical requirements of different approaches.
What you'll learn (100–150 words)	The project will provide experience in evidence synthesis, research methods, and emerging quantitative and computational approaches in psychology, helping students understand how different types of data can be used to test and refine psychological theories and develop targets for intervention
Project outcomes (75–125 words)	The project hopes to produce a summary of quantitative modelling and computations approaches relevant to grief and trauma research. This will include identifying different methods and the types of data they require and provide a foundation for future research projects.



This project would suit students who have completed at least 2 full years of undergraduate study in psychology or equivalent, along with

Who should apply?
(75–125 words)

- an interest in research methods, quantitative thinking, and data-driven approaches to understanding human behaviour.
- Basic familiarity with academic databases (e.g., PubMed, PsycINFO).
- Willingness to engage with complex and sometimes contested ideas.
- Strong attention to detail, particularly in reading and interpreting academic literature.

The focus of the project is on modelling approaches and research design rather than clinical assessment, intervention, or supporting individuals experiencing distress.

Team & supervision
(75–125 words)

Supervisor: Dr Fiona Maccallum; you may be working with another student.

Additional opportunities
(optional)

Additional requirements
(if applicable)

f.maccallum@uq.edu.au

Please get in touch with me prior to submitting your application.

Contact

Direct enquiries to: _ f.maccallum@uq.edu.au _____