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	Provide a **clear and engaging title** that captures the focus of your research. Aim for a title that is **concise while still sparking interest**. This is often the first impression students will have of your project. **Keeping the Beat, Staying on Your Feet: Investigating the Cognitive and Movement Benefits of Music and Drumming for Falls Prevention**
Hours & delivery	Projects must align with **program dates** and involve **20–36 hours per week**. Please specify the weekly **hours**, delivery **mode** (On campus, Hybrid or Online), and **campus** or **location**. If known, include typical **working days or hours** to help students understand the expected commitment. **The project will be conducted at St Lucia campus, in person, through the School of Psychology and the School of Music. Typically, it will involve two and a half to three (2.5 - 3) working days per week. It will involve in-person testing (data collection).**
About the project (150–250 words)	Describe your project in **accessible language** so students from relevant backgrounds can understand it. **Explain the research question** or problem, **why it matters**, and the broader **aims** and **context** of the work. Indicate how the **students' input** will contribute to this. **Falls/falls risk is a growing problem not only globally, but for the Australian nation. The number of Australians aged 65 years or over has risen from 15.1% in 2015 to 15.9% or 3.9 million people in 2019 (ABS, 2019). This research addresses the cognitive processing issues associated with falls/falls risk with research evidence for cognitive and behavioural enhancements in these areas stemming from instrumental music training, and particularly drumming. We are investigating how drumming training hones cognitive and whole-body movement abilities that are vital to preventing falls.** **In this summer project we start by having young people make no-go/go actions to an arrow or a tone signal on foot and hand pads (stop-signal task). We will be collecting response time and accuracy data. Then, we will have individuals perform this task in an immersive, in an immersive Virtual /Augmented Reality environment inviting naturalistic whole body movement in space.** **The pattern of findings will inform the basis of a new theoretical model of drumming neurobehaviour, and drive development of an innovative drumming-based falls prevention approach in older individuals, including musicians and non-musicians.**
What you'll do (100-150 words)	Outline the **key activities students will undertake** throughout the project. **The student will be trained to recruit participants and to conduct in-person behavioural experiments (hand- and foot-pedal press), as well as experiments in immersive reality (Virtual / Augmented Reality environment). They will be taught**

	to access the experimental programmes and to save and upload the data. If time permits, they will also be introduced to data cleaning and analysis techniques. They will also be encouraged to attend weekly lab meetings.
What you'll learn (100–150 words)	Describe the **skills and experience students will gain** from participating in the project. **The student will learn the systems available to recruit participants and to conduct in-person behavioural experiments, as well as experiments in immersive reality (Virtual / Augmented Reality environment). If time permits, they may also be introduced to data cleaning and statistical analysis techniques, and will gain familiarity with relevant computer software (e.g., Matlab, Xcel) and Virtual Reality software.**
Project outcomes (75–125 words)	Briefly describe the **expected outputs or achievements** by the end of the project. **We expect to collect data (with the help of the Research Assistant) from about 15 participants young participants of a behavioural (hand- and foot- pedal-press task, and we anticipate that we should be able to collect 7 sets of data in the Virtual Reality lab**
Who should apply? (75–125 words)	Describe the **attributes** that would make a student a good fit for the project. This may include **relevant disciplines** or **year level**, as well as **useful skills** or **coursework**. You can also highlight **interests** and **personal qualities** that would support success. **We would welcome applicants who have a background in experimental Cognitive Neuroscience and Music, subjects and are interested in ongoing research. Candidates should be comfortable with meeting participants and taking them through in-person data collection, as well as learning to interact in a preliminary way with computer software programmes such as Matlab, Excel, and the Virtual Reality software.**
Team & supervision (75–125 words)	Provide details about the **supervision and research environment**. Include the supervisor's name and position, as well as the research group or lab. You should also indicate **who students will work** with during the project. **The student will be supervised jointly by Dr Mick Zeljko, Associate Professor Mary Broughton, and Associate Professor Ada Kritikos, and will work in the Perception and Action lab of the School of Psychology, and in the School of Music.** .
Additional opportunities (optional)	Describe **any additional opportunities associated** with the project, such as presentations, networking, or publications, pathways into ongoing research or further study. These experiences can **help students understand the broader value** of participation. **The student will be working with researchers in the School of Psychology as well as Music, who are collaborating prominent international leaders in this field (Denmark). Hence there are opportunities for networking and future research. There are also opportunities for presenting the work in the context of lab meetings and thus developing presentation skills. Additionally, there may be opportunities to progress to Honours research training and publications. We will teach some basic familiarity with relevant computer software (e.g., Matlab, Excel), which will be useful future employability skills.**
Additional requirements (if applicable)	List **any other specific requirements** students should be aware of before applying. This may include safety training, field work, licences, checks, etc. **Students will be trained to conduct research activities safely in the lab in line with risk management and ethics approvals**.

Contact	(Yes/No), students (may/may not) contact the supervisor before applying. Direct enquiries to: **Associate Professor Ada Kritikos a.kritikos@psy.uq.edu.au**