

## UQ Winter Research Project Description - 2026

Please use this template to create a description of each research project, eligibility requirements and expected deliverables. Project details can then be uploaded to each faculty, school, institute, and centre webpage prior to the launch of the program.

<b>Project title:</b>	Ready... Set... Wait: How the Brain Prepares for Action When Timing Is Uncertain
<b>Hours of engagement &amp; delivery mode</b>	Hours of engagement: 25-35 hours per week for 4 weeks (29 Jun – 24 July 2026). Projects are offered on-site at the UQ St Lucia campus
<b>Description:</b>	<p>Many everyday actions require us to prepare movements before we know exactly when something will happen. For example, when waiting for a traffic light to change or anticipating the start of a race, the brain must prepare for action while dealing with uncertainty about timing. This project investigates how people prepare and execute movements when the timing of an event is unpredictable. Participants will complete computer-based reaction time tasks in which visual targets appear after different delays.</p> <p>Scholars involved in the project will help run behavioural experiments with human participants and will gain experience with research methods commonly used in cognitive neuroscience. By changing how predictable these delays are, the study will examine how temporal expectations influence how quickly and accurately people respond. The project will provide insight into how the brain anticipates events and prepares actions in uncertain environments.</p>
<b>Expected learning outcomes and deliverables:</b>	<p>Scholars participating in this project will gain practical experience in cognitive/behavioural neuroscience research. This may include:</p> <ul style="list-style-type: none"> <li>• Conducting computer-based experiments with human participants</li> <li>• Learning how reaction time studies are designed and executed</li> <li>• Participant recruitment and laboratory testing</li> <li>• Learning basic approaches to analysing experimental results</li> </ul> <p>Scholars will contribute to data collection and may also assist with organising and summarising behavioural data.</p>
<b>Suitable for:</b>	<p>This project is suited to students with a background in psychology who are interested in cognitive neuroscience and experimental research. Preference will be given to students in their 3rd or 4th year, although exceptional 2nd-year students will also be considered.</p>
<b>Primary Supervisor:</b>	Dr Sam Armstrong
<b>Further info:</b>	<p>Students interested in applying for this project are encouraged to contact Dr Sam Armstrong via email before submitting their application. Email: samuel.armstrong@uq.edu.au</p>

