

PSYC3030

Psychology Undergraduate Research Experience (PURE)

Title of Project	Within-Person Analyses, Ergodicity, and Ecological Momentary Assessment (EMA)
Supervisor	Primary: Dr Conal Monaghan, Secondary: Peter Chenery, Peter Hayes
Supervisor Contact Details	Peter.Hayes@anu.edu.au
Expressions of Interest due by	Friday 31 July 2026
Project Background	Traditional psychological research frequently relies on between-person designs, assuming that group-level averages generalise to the individual. This project explores the critical concept of ergodicity (whether within-person processes match between-person structures) and investigates how within-person dynamics profoundly influence statistical modelling and behavioural outcomes. Students will immerse themselves in strong research practices, focusing heavily on Ecological Momentary Assessment (EMA) methodologies to capture real-time, real-world data. Students will actively collaborate across two related hands-on research projects: • Project 1: Systematic Review on Ergodicity: Students will gain experience in rigorous research practices by actively participating in the data extraction process for a systematic review mapping how ergodicity is currently treated in the literature. • Project 2: EMA Study Design & Trialling: Students will conceptualise and discuss an EMA project, evaluating different design styles, and hands-on trial a study framework to evaluate its feasibility and outcomes. This project provides an exciting opportunity to engage with cutting-edge methodology in psychological assessment, contribute to foundational research practices, and gain advanced skills in research design, data extraction, and structural analysis. It involves weekly meetings with the conveners, offering direct collaboration with academic staff while allowing students to provide their own unique insights into real-world data applications.

Time and duration of project	Semester 2, 2026 (12 weeks). Approximately 10 hours per week, including 1–2 hours of weekly contact time/meetings.
Pre-requisites	Undergraduate student in psychology. Comfort with Statistical thinking
Details of indicative assessments for this course are: 1. Review of the literature to address a research question (30%) 2. Presentation of a theoretical or empirical project (30%) 3. A summary paper (40%)	Review of the literature to address a research question (30%): <i>EMA Research Plan & Trial Report (1,000 words; Due Week 6)</i> — Conceptual design, feasibility evaluation, and pilot findings of an EMA framework. • Presentation of a theoretical or empirical project (30%): <i>Oral Group Presentation & Interactive Discussion (15 mins total / 5 mins per member; Due Exam Week 2)</i> — Group presentation focusing on translating within-person structures to practice, including leading class discussion/Q&A. • A summary paper (40%): <i>Systematic Review Data Extraction & Synthesis Paper (1,000–1,200 words; Due Week 12)</i> — Dual-coded data extraction from 50 articles, inter-rater reliability comparison report, and synthesis paper.
Any additional information	We are seeking students who are well-organised, collaborative, and deeply interested in advanced research methods, psychometrics, and within-person statistics. This project is ideal for those aspiring to quantitative or clinical research careers where tracking individual trajectories over time is vital. Students will contribute directly to active research datasets with real-world statistical impacts. Supervision will be conducted through meetings with either Dr Monaghan, Peter Hayes, and/or Peter Chenery given each have different expertise for you to learn from.
Places Available	4 – 6