# COMP39/9900 Computer Science/IT Capstone Project
# School of Computer Science and Engineering, UNSW

**Project Number:** P4

**Project Title:** Helping 10 million people with Parkinson's disease walk to the beat of music

**Project Clients:** Walking Tall Health, Matthew Brodie

**Project Specializations:** Mobile application development

## Number of groups: 2

## Background:

OVERVIEW

Translated into five languages, the Walking Tall phone app is already helping 1,000's of people with Parkinson's walk. Take the next step with your CSE Capstone project and develop a new "walking to the beat of music" feature in partnership with UNSW spin-out Walking Tall Health.

BACKGROUND

A team led by UNSW Sydney biomedical engineer Dr Matthew A Brodie developed the Walking Tall app following a clinical trial funded by Shake It Up Australia Foundation and the Michael J Fox Foundation for Parkinson's Research. Part of the trial utilised the app's gait re-training tool which now allows users to set their own training time and pace before delivering a rhythmic metronomic beat for three different walking speeds that is designed to trigger movement. The app is free to download from the iOS store and Android store.

See http://www.walkingtallhealth.com.au/

CAPSTONE GOALS

Based on end-user feedback, the capstone project will contribute the addition new functionality including development options for walking/running to the beat of music, connecting to our new life-fit stimulation device, and a new progress tracking/reminders screen.

## Requirements and Scope:

Addition new functionality to the Walking Tall Phone App including development options regarding walking/running to the beat of music, connecting to our new life-fit stimulation device, and a potentially a new progress tracking/reminders screen if progress on the first two features is exceptional.

Agile approach. Build the prototype and test in some people living with Parkinson's disease (in collaboration with Walking Tall Health). Gather feedback on the prototype before a second development sprint towards delivery of a functioning (but not necessarily beautifully finished) phone app.

**Required Knowledge and skills:**

Mobile phone app development

**Expected outcomes/deliverables:**

A new "walking to the beat of music" feature for the Walking Tall Phone app.

**Supervision:**

Matthew Brodie

**Additional resources:**

Students will be required to sign a declaration that background intellectual property and any subsequent materials developed as part of this capstone project will remain solely the property of Walking Tall Health.