Statistical Consulting Centre

Statistics for Research Workers using R and R Markdown
Wednesday, 22 November to Wednesday, 29 November 2023
Enrolment form for fee-paying participants

Title:		Full Name:	
Employer:			
Department:			
Address:			
Suburb:		Postcode:	
Email:			
Telephone:		Mobile:	

Signature:		Date:	

Course fees	Full	$1485		
	UoM GR student	$1100	Student ID	

Internal billing (within the University):

☐	**Internal transfer of funds**	Staff $1350	☐	UoM Student $1000	☐

Full Themis account string									
Finance person:			**Finance email:**						

External billing:

☐	Tax invoice	External party fee includes GST $1485
	Name/Company	
	Address	

☐	To pay by credit card, go here:	https://ecommerce.unimelb.edu.au/statistics-for-research-workers-using-r-and-r-markdown

Statistics for Research Workers using R and R Markdown

A course of the Statistical Consulting Centre, University of Melbourne

Wednesday, 22 November to Wednesday, 29 November 2023

(Face to face)

This course provides an introduction to foundational statistical methods and ideas used throughout statistics and data science. It uses R statistical software with RStudio and R Markdown. You will gain experience in the use of R as part of the course, but the focus is on statistical methods including:

- Measurement and study design
- Data summaries and data visualization
- Understanding distributions: the Normal distribution and the binomial distribution
- Central Limit Theorem and its application
- Foundations of statistical inference: estimation and confidence intervals, hypothesis testing
- Simple analytic methods for numerical outcomes: paired samples and independent samples
- General linear model for numerical outcomes, including analysis of variance and linear regression
- Simple analytic methods for categorical data based on contingency tables
- General analytic method for binary outcomes: logistic regression
- Principles of the design of experiments, including determination of sample size

Course structure: Dates: Wednesday, 22 November to Wednesday, 29 November 2023. The course is deliberately arranged so that there is a weekend break in the middle. The first session of the day will commence at 9:15 a.m. and the final session will end at approximately 4:45 p.m. The sessions will mix lecture presentations with practical work using software; tutorial help will be liberally available.

Registration is at 9 am on the first day.

A full set of notes will be provided. A certificate on completion can be provided on request.

Venue: The course will be held in the Wilson Computer Laboratory in the School of Mathematics and Statistics, Peter Hall Building (160). Parking within the University grounds will not be available.

Prerequisites: There are no formal prerequisites though it is expected that most participants will have studied mathematics at VCE level, or equivalent**. *Participants need to be comfortable with a limited amount of mathematical notation.* The onus is on participants to check that the course suits their needs. Please do this carefully.

Course presenters: Professor Ian Gordon, the Director of the Statistical Consulting Centre and Associate Professor Sue Finch, who have given many similar courses previously.