Statistical Consulting Centre

Design and Analysis of Experiments (3 days)
Tuesday, 4 February to Thurs, 6 February 2020
Enrolment form for participants

School of Mathematics and Statistics

Statistical Consulting Centre

THE UNIVERSITY OF MELBOURNE

Title: _____ First Name: _____ Surname: _____

Employer: _____

Department: _____

Address: _____ Postcode: _____

Telephone: _____ Fax: _____ Mobile: _____

Email: _____

Places in the course will be allocated on a first-come-first-served basis, with preference given to those who have previously expressed interest.

Please see the course outline for further information, including course times, content and pre-requisites.

_____   _____
                        Signature   Date

Course Fees: **Full Fee: $880**
                                     UoM student Fee: $660   Student ID:_____

Tick one box <u>only</u>:

[ ]   Please send an internal charge-out for **$600/$800** to _____(*required **Depart No. & Cost Centre**).

        Or Full accounting string:_____
        Finance person:_____ Email:_____

[ ]   Cheque for **$660/$880** (paid to Statistical Consulting Centre) enclosed (includes GST).

[ ]   Please send/fax me a tax invoice for **$660/$880**(includes GST).

To pay by **credit card ($660/$880)** you need to go online at:

http://ecommerce.science.unimelb.edu.au/product.asp?pID=86&cID=12

Payment is required to confirm enrolment.

DAE 2020

Statistical Consulting Centre
139 Barry Street, Carlton Victoria 3053
The University of Melbourne
Telephone: +61 3 8344 6995
Email: dmai@unimelb.edu.au
WWW: http://www.scc.ms.unimelb.edu.au

Design and Analysis of Experiments

A course of the Statistical Consulting Centre, The University of Melbourne

Tuesday, 4 February to Thursday, 6 February 2020

This course covers the principles and practice of designing experiments, and the analysis of data from them. The course covers the following topics:

- choice of experimental units;
- importance of randomisation, and the practicalities;
- replication and sample size;
- blocking and matching;
- commonly used designs, including completely randomised designs, randomised block and matched pair designs, Latin square designs;
- treatments, including factorial structures;
- analysis of data from designed experiments;
- analysis of variance and covariance;
- special designs, including incomplete block designs, split-plot designs, and fractional factorial designs;
- transformations of data;
- practical and ethical issues arising in the conduct of experiments.

Course structure:

Each day will consist of four approximately equal-length sessions; the first session of the day will commence at 9:00 a.m. and the final session will end at approximately 4.45p.m. The sessions will mix lecture presentations with practical work.

All participants have access to a PC. The statistical package Minitab will be used in the course. However, the course will not be package-centred, and no prior experience with Minitab is necessary.

The course is one of the specialised courses offered by the Statistical Consulting Centre. Each year, the Centre offers the general, introductory course "Statistics for Research Workers" at least twice, and at least one additional, more specialised course.

Venue:

The course will be held in the Giblin Eunson Library, 111 Barry Street, Carlton, 3053. The Giblin Eunson Library is well served by public transport. See Metlink for details. Parking is not available.

Cost:

The cost of the course is $800 plus GST. We have a discounted rate for University of Melbourne graduate researcher students of $600 plus GST. (GST does not apply if paying through your University department.) Lunches are not provided.

Who should take this course?

The course is suitable for researchers involved in the design and analysis of research on the effectiveness of interventions or treatments. Applications include randomised trials in medicine or the social sciences, designed experiments in the biological sciences, studies of processes in engineering, as well as many other possibilities in other disciplines.

Course presenter:

The presenter is Associate Professor Graham Hepworth, Consultant for the Statistical Consulting Centre, School of Mathematics & Statistics. Graham has had extensive experience over two decades in the area of design and analysis of experiments, supervising trials in forestry, horticultural science, animal studies, medicine and the social sciences.