Transport Data Analysis and Modelling Methodologies
CONTINUING PROFESSIONAL DEVELOPMENT 5-DAY COURSE

Presented by The University of Queensland, this week-long CPD course will provide expert insight into the application of a wide variety of statistical and econometric methods for analysing data.

The application focused course will address fundamental conceptual issues often overlooked in the literature, including self-selectivity, unobserved heterogeneity, endogeneity, among others. Course participants will view their research and data in important new ways. Moreover, the course is delivered around hands-on modelling exercises so that students become proficient in estimating models using software.

While the course will present model-estimation methods with examples drawn primarily from transport, the methods presented have broad applications to a very wide variety of subject areas. Even though the course has an applied focus, the underlying theory, limitations, and practical interpretation will be discussed to ensure that the methods are properly applied and understood.

DATE
Monday 25 June - Friday 29 June 2018

LOCATION
The University of Queensland, Brisbane, Australia

REGISTRATION
Registrations close Monday 11 June 2018

Full Rate: $3200
University Students: $1920
TMR Employees: $2880
Group Rate*: $2880 pp

UQ Staff: $1600
UQ Students: $1000

*C3 or more people from the same organisation

COURSE CONTENT
• Statistical modelling fundamentals
• Estimators and their properties
• Least squares regression and maximum likelihood estimation
• Model specification errors
• Simultaneous equation models
• Count-data models (Poisson, negative binomial, zero-inflated)
• Discrete outcome models (including ties to economic theory)
• Nested logit/generalized extreme value models
• Ordered probability models with fixed and random effects
• Self-selectivity and discrete/continuous models
• Hazard-based duration models
• Random parameter models (mixed logit, count duration models)

COURSE ENQUIRIES
Selina Weller
s.weller@uq.edu.au

REGISTER
Participants are required to bring their own windows-capable laptop to the course. Econometric software will be provided for installation prior to commencement.

**KEY FEATURES**

Participants will receive extensive course notes and a copy of the 2011 instructor-authored book “Statistical and econometric methods for transportation data analysis, 2nd Edition”. Course instruction will closely follow this text to acquaint participants with the format, learning approach, and many other analysis concepts including extensive hands-on model estimation using a variety of data and examples.

- A total of 10 hands-on interactive modelling sessions will be included with direct input and one on-one interaction with course instructors.
- One on one assistance in building models, and plenty of group discussions and hands on problem solving.

**Professor Simon Washington**

is currently Head of School at The University of Queensland’s School of Civil Engineering. Professor Washington has been lead investigator on over $26million of externally supported research and has secured nationally competitive research grants in both Australia and the United States. His research interests include the human and engineering causes and mechanisms associated with transport system related crashes, sustainable transport issues including active travel, air quality and global warming impacts of transport, travel behaviour, and links between transport, land use, and urban planning.

**Professor Fred Mannering**

is the Associate Dean for Research in the College of Engineering and Professor of Civil and Environmental Engineering at the University of South Florida. He received his BSCE from the University of Saskatchewan, MSCE from Purdue University and PhD from the Massachusetts Institute of Technology. His expertise is in the application of statistical and econometric methods to study a variety of subject areas including highway safety, transportation economics, automobile demand, and travel behavior.

**Professor Carlo Prato**

is currently Professor in Transport Engineering at the School of Civil Engineering of The University of Queensland. His natural curiosity and passion for behavioural modelling and his expertise and knowledge in statistical and econometric modelling drive his research into understanding what makes people behave the way they do as pedestrians, cyclists, public transport users, and car drivers. He has led projects in three continents focusing on planning and safety solutions in the real-world, and his publications and contributions to science are cross-disciplinary in nature as they lie at the intersection of engineering, social science, psychology and medicine.