

## Intensive workshop

Hands-on dynamic modelling in health using AnyLogic

### When and where

Monday 9 May to Friday 13 May  
(8:30am-5pm)  
UTS Building 10, Level 7  
235 Jones Street,  
Ultimo NSW 2007

### Reservations and inquiries

Geoff McDonnell

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### Workshop Pricing Information (\$A including GST)

Students \$1,100

Academic and Public Sector \$2,200

Corporate and Private Sector \$3,960

Lunch for 5 days, morning and afternoon teas will be provided

### Indicative Content over the 5 day Workshop

Nate Osgood has conducted many previous similar workshops, bootcamps and courses for a wide range of Canadian, US and International audiences which will provide a basis for this workshop. The content and daily schedule will be similar to that in a previous

[UNC Bootcamp](#), adapted to the specific interests of the workshop attendees

# Nate Osgood's 5 Days Hands-on Dynamic modelling for Health using AnyLogic Sydney May 9-13

Professor Nate Osgood, an international expert in teaching and researching systems science and data science in health will be holding a 5 day workshop in Sydney from 9 to 13 May 2016

The five-day intensive hands-on workshop will provide training in developing, testing and using dynamic simulation modelling methods in a wide range of health areas, including many practical examples relevant to participants' interests. Application areas include public health prevention, policy and health economic models addressing efficiency, effectiveness and equity, social determinants of health, infectious and food-borne disease, chronic disease management, mental health, hospital and health service networks, workforce and interfaces among care sectors.

The main aims of the workshop are to:

- Provide hands-on expertise in building, testing, calibrating and experimenting with agent-based and hybrid models (additional system dynamics, discrete event simulation) using AnyLogic
- Show how these system science models can be used with traditional health sciences tools, including epidemiological and biostatistical methods, administrative data, smart phone collection devices, systematic reviews and meta analyses
- Provide access to sophisticated tools for model analysis, and understanding, debugging and managing the modeling process
- Provide participants with a broad and evolving set of existing health and health care models and resources.

The workshop will suit technical multimethod modellers using AnyLogic for policy advice, service improvement, population health and health equity, and researchers and practitioners interested in combining advanced complex systems science and data science methods.

### About Nate Osgood

Professor Osgood is an Associate Professor in the Department of Computer Science and Associate Faculty in the Department of Community Health & Epidemiology, and Division of Bioengineering at the University of Saskatchewan. His research is focused on providing and applying cross-linked simulation, ubiquitous sensing and computational statistics methods to inform understanding of population health trends and health policy trade-offs.

He has been applying dynamic modelling to improve decision making – with a particular focus on health – for more than 25 years, with contributions in the communicable, chronic and zoonotic disease areas, and to social and environmental epidemiology and tobacco policy.

Professor Osgood has contributed multi-scale modelling and other approaches that hybridise agent-based models with system dynamics and social networks analysis approaches, techniques combining dynamic modelling with Markov Chain Monte Carlo and Sequential Monte Carlo statistical methods, combining simulation models with decision analytic approaches, and novel languages, scale-modelling approaches and architectures to reduce barriers to use of agent-based models.

