



3 Courses

Developing the SIR Model

Interventions and  
Calibration

Building on the SIR Model

Imperial College  
London

May 12, 2024

**Daniel Muiyiwa Adefisoye**

has successfully completed the online, non-credit Specialization

# Infectious Disease Modelling

This specialisation combines the basic theory of infectious disease modelling and practical experience of coding models in the programming language R. It focuses on compartmental modelling using the 'SIR model' as a means through which to begin developing and interpreting infectious disease models. Successful participants can construct valid mathematical models capturing the natural history of a given infectious disease. They are able to implement a mathematical model in R, calibrating it against epidemiological data, to estimate key model parameters and use a calibrated model to create model projections for intervention scenarios. Finally, they can explain the strengths and limitations of a mathematical model in relation to given research and policy questions.

Dr Nim Arinaminpathy,  
Reader in Mathematical  
Epidemiology

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