

## Provisional timetable – Introduction to Infectious Disease Modelling and its Applications (online course)

All listed times are UK time (UTC + 1).

Activity	Monday, 15 <sup>th</sup> June	Tuesday, 16 <sup>th</sup> June	Wednesday, 17 <sup>th</sup> June	Thursday, 18 <sup>th</sup> June	Friday, 19 <sup>th</sup> June
	14.00-14.30 Welcome and introduction to the course  EV, RW, NM	14.00-14.30 Review of S2 Q&A session on Collaborate	14.00-14.30 Review of S3: Q&A session on Collaborate	14.00-14.30 Review of S4: Q&A session on Collaborate	14.00-14.30 Review of S5 and S6 Q&A session on Collaborate
	14.30-16.00 Live lecture with questions: S1. Introduction the epidemiology of infections  Lecturer: PF	14.30-16.00: Guest lecture on the applications of modelling TBC	14.30-16.00: Guest lecture on the applications of modelling TBC	14.30-16.00: Guest lecture on the applications of modelling TBC	14.30-16.00: Guest lecture on the applications of modelling TBC
Suggested self-study material for review at 2pm on next day	S2. Basic methods for setting up models: difference equations	S3. Basic methods for setting up models: differential equations	S4. Natural dynamics of infections	S5. Review of block 1 S6. Analysing seroprevalence data	S8. Contrasting the effects of rubella vaccination between high and low transmission settings S9. Simulating the effects of non-random mixing on transmission and control

Activity	Monday 22 <sup>nd</sup> June	Tuesday 23 <sup>rd</sup> June	Wednesday 24 <sup>th</sup> June	Thursday 25 <sup>th</sup> June	
	14.00-14.30 Review of S8&9:  Q&A session on Collaborate [15 mins per topic]	14.00-14.30 Review of S8&6: Q&A session on Collaborate	14.00-14.30 Review of session 12: Q&A session on Collaborate	14.00-14.30 Review of session 13, 14, 15: Q&A session on Collaborate	14.00-14.30 Review of session 18, 19, 20 [10 mins per topic]
	14.30-16.00: Guest lecture on the applications of modelling TBC	14.30-16.00: Guest lecture on the applications of modelling TBC	14.30-16.00 Live lecture with questions S13: Economic evaluation of infectious disease interventions  Lecturer: MJ	14.30-16.00 Live lecture with questions S17: Real-time modelling  Lecturer: SFI	14.30-15.30 Guest lecture on the applications of modelling  TBC
Suggested self-study material for review at 2pm on next day	S10. Estimating basic reproduction numbers for non-randomly mixing populations	S11. Review of block 2 S12. Stochastic modelling	Practical: S13 Health economics and sensitivity analysis: Cost-effectiveness of seasonal influenza vaccination  Optional recorded lectures: S14: Fitting models to data II - numerical optimisation and sensitivity analysis S15 Network modelling	S18 STI modelling S19 TB modelling S20 Malaria modelling	15.30-16.00  Course farewell and end of course

## **Lecturers**

Paul Fine (LSHTM)

Stefan Flasche (LSHTN)

Mark Jit (LSHTM)

Nicky McCreesh (LSHTM)

Tom Sumner (LSHTM)

Emilia Vynnycky (PHE/LSHTM)

Richard White (LSHTM)

Laith Yakob (LSHTM)

## **Current confirmed guest speakers and topics:**

Edwin van Leuwen (PHE) – contact matrices and effect of social distancing (provisional title)

Paul Birrel (PHE) – real-time COVID modelling (provisional title)

Andre Charlett (PHE) – data issues for COVID modelling

Hans Heesterbeek –  $R_0$