

# Modelling COVID-19 epidemics

A course organized by ISBE-NL, ELIXIR-LU, and EOSC-Life

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<b>Mon 30 Nov</b>	<b>Day 1 (week 1)</b>	<b>Introduction to the Course &amp; Modeling</b>	
<b>Module I</b>	<b>30 min</b>	Brief intro of the trainers and round of introduction of the participants	
	<b>10 min</b>	Introduction to the <i>contents</i> of the course and <i>platform/tools</i> that will be used	
	<b>10 min</b>	Coffee break	
	<b>30 min</b>	Molecular & Systems biology of COVID-19, state of the art   Stefania Astrologo	Lecture
	<b>30 min</b>	Epidemiology and <i>Policies</i> of COVID-19 in different countries   Hans V. Westerhoff	Lecture
	<b>10 min</b>	Coffee break	
	<b>40 min</b>	Introduction to modelling with COPASI (for epidemiological model)  Alexey Kolodkin	Interactive Lecture
<b>Tue 1 Dec</b>	<b>Day 2 (week 1)</b>	<b>Running an available model of COVID-19 epidemics</b>	
<b>Module I</b>	<b>15 min</b>	Coffee/questions/informal discussions/setting connections etc.	
	<b>30 min</b>	<i>COVID-19 Data and Models in FAIRDOMHub</i> : Importance of FAIR data management   Olga Krebs	Lecture
	<b>10 min</b>	Coffee break	
	<b>45 min</b>	<i>Westerhoff &amp; Kolodkin COVID-19's model tutorial (PART I)</i>	Tutorial
	<b>15 min</b>	Coffee break & <b>Checkpoint</b>	
	<b>45 min</b>	<i>Westerhoff &amp; Kolodkin COVID-19's model tutorial (PART II)</i>	Tutorial
<b>Wed 2 Dec</b>	<b>Day 3 (week 1)</b>	<b>Running an available model of COVID-19 epidemics</b>	
<b>Module I</b>	<b>15 min</b>	Coffee/questions/informal discussions/setting connections etc.	
	<b>45 min</b>	Development and tailoring COVID-19 models in BioUML using data from different regions   Ilya Akberdin, Ilya Kiselev and Fedor Kolpakov (Biosoft, Novosibirsk, Russia)	Interactive Lecture
	<b>10 min</b>	Coffee break	
	<b>45 min</b>	LCSB invited speaker on COVID-19 models used in advice to governments; how accessible are they?	Lecture
	<b>10 min</b>	Coffee break	
	<b>30 min</b>	Final remarks - Conclusion of Module I   Hans V. Westerhoff	
<b>Mon 7 Dec</b>	<b>Day 4 (week 2)</b>	<b>Running an available model of COVID-19 epidemics</b>	
<b>Module II</b>	<b>15 min</b>	What we have learned until now	
	<b>45 min</b>	Round table of participants defining a number of issues to be addressed by modelling	
	<b>10 min</b>	Coffee break	
	<b>20 min</b>	Division into groups, one per topic area ( <i>e.g. modelling economic consequences; modelling impact of geographic heterogeneity</i> )	
	<b>90 min</b>	Tailoring the standard model to the topic area to be addressed ( <i>individual or small groups work assisted by trainers</i> )	
	<b>20 min</b>	Plenary discussion	

<b>Tue 8 Dec</b>	<b>Day 5 (week 2)</b>	<b>Running an available model of COVID-19 epidemics</b>	
<b>Module II</b>	<b>15 min</b>	Coffee/questions/informal discussions/setting connections etc.	
	<b>45 min</b>	Tailoring your own model ( <i>individual or small groups work assisted by trainers</i> )	
	<b>15 min</b>	Coffee break & <b>Checkpoint</b>	
	<b>45 min</b>	Tailoring your own model ( <i>individual or small groups work assisted by trainers</i> )	
<b>Wed 9 Dec</b>	<b>Day 6 (week 2)</b>	<b>Running an available model of COVID-19 epidemics</b>	
<b>Module II</b>	<b>15 min</b>	Coffee/questions/informal discussions/setting connections etc.	
	<b>45 min</b>	Round-table presentations   Open presentations by groups on their achievements   General round-table discussions	
	<b>10 min</b>	Coffee break	
	<b>45 min</b>	Round-table presentations   Open presentations by groups on their achievements   General round-table discussions	
	<b>10 min</b>	Coffee break	
	<b>30 min</b>	"Towards a systems approach to pandemics, How can science optimize health policies" (Concluding lecture)   Hans V. Westerhoff	



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