3ed. Italian System Dynamics SUMMER SCHOOL



SYDIC's Summer School on System Dynamics is dedicated to the application of holistic modeling to analyze complex systems across various fields, such as biology, ecology, economics, and engineering. The program equips participants from diverse backgrounds with the theory, methodology, and tools needed to model complex systems and identify systemic solutions.

WHERE?

REGGIA BORBONICA DI PORTICI
home to the Department of Agriculture of the University of Naples Federico II

WHEN?

JUNE 16–20 2025

PROGRAM OVERVIEW

The Summer School on System Dynamics includes the following key activities:

- **Introduction to System Dynamics**
- **Presentation of Case Studies**
- **Realization of System Dynamics Models in Applied Fields**

At the end of the Summer School, participants will receive a certificate from the University of Naples Federico II's doctoral schools and earn 6 CFU/ECTS credits

5 SCHOLARSHIPS AVAILABLE (FEE WAIVER)

Participants can apply for a scholarship by selecting the relevant option during registration. The commission will evaluate the applications and create a ranked list, possibly with a rolling admission.

REGISTRATIONS HAVE BEEN EXTENDED UNTIL JUNE 2, 2025

Click here to learn more!

REGISTER NOW

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The Summer School Program

16 JUNE	**10:00 – 13:00**	Reception
	14:30 – 15:00	Introduction to the school programme
	15:00 – 16:00	Introduction to Systems Thinking and System Dynamics
	16:00 – 17:00	Introduction to Causal loop e archetype
	17:30 – 19:00	Causal loop: exercises
17 JUNE	**9:00 – 10:30**	SD: language and tool (simulate with Silico)
	11:00 – 12:00	SD models. 1-stock systems dynamics (linear, exponential and logistic dynamics)
	12:00 – 13:00	SD models. Species/resource explicit model
	14:30 – 16:00	Practical sessions: model implementations
	16:00 – 17:00	SD models. 2-stocks systems dynamics
	17:30 – 19:00	SD models. 2-stocks systems dynamics (prey-predator, competition, collaboration models, ...)
18 JUNE	**9:00 – 10:30**	Example of SD in Ecology: Autoxicity model
	11:00 – 12:00	Example of SD in Economy: Sustanability
	12:00 – 13:00	Example of SD in Food: Food Systems and Sustanability
	14:30 – 16:00	Integrated modelling approches: ABM and SD
	16:00 – 17:00	Presentation of case studies
	17:30 – 19:00	Presentation of case studies
	21:00 – 23:00	Play with SD
19 JUNE	**9:00 – 10:30**	Project work group formation
	11:00 – 12:00	Practical sessions: Definition of the model: CL
	12:00 – 13:00	Practical sessions: From CL to SD
	14:30 – 19:00	Practical sessions: SD model implementation
20 JUNE	**9:00 – 12:00**	Project work presentations
	12:00 – 13:00	Debriefing and conclusions

DEPARTMENT OF AGRICULTURAL SCIENCES

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