

## Summer school on Research Planning in Applied Entomology, 2<sup>nd</sup>-4<sup>th</sup> July 2025

Agripolis, University of Padova, Viale dell'Università 16, 35020, Legnaro, Padova

Instructors: Lorenzo Marini, Costanza Geppert, Davide Nardi

Info about the organizing committee: <https://biodiversity-lorenzomarini.weebly.com/>

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Target participants: enrolled and incoming 1<sup>st</sup> year PhD students in Applied Entomology

Max number of participants: **15**

Registration fee: **150€** (including a social dinner)

Prerequisites: No prerequisite is needed

This course is designed to provide participants with essential knowledge and practical skills for designing robust empirical studies in applied entomology, with a strong emphasis on adopting a hypothesis-driven approach. Throughout the course, students will explore the full spectrum of methodological approaches commonly employed by applied entomologists, including both manipulative experiments and observational field studies. The course is primarily targeted at first-year PhD students, although early-stage researchers working on applied entomology topics may also benefit. It will particularly suit those interested in designing studies to address real-world questions related to pest management, insect ecology, agro-ecology, zoology and other entomological research areas.

The course will begin with an introductory session providing an overview of core principles in experimental design, sampling strategies, and hypothesis formulation. Following this, students will actively work on developing their own study designs, drawing on their current research questions and receiving individualized guidance from a team of experienced researchers in the field of applied entomology. This hands-on, student-centered approach will allow participants to refine their designs through interactive discussions, feedback sessions, and peer-to-peer learning. On the final day, each student will present their completed study design to the group, receiving structured feedback from instructors and fellow participants to help them further strengthen their approach. The course will make extensive use of real-world case studies and problem-solving exercises, helping students understand how to anticipate and address common challenges that arise when planning applied entomology research.

Importantly, this course will focus exclusively on the planning and design phase of empirical research, i.e. the critical steps that lay the foundation for reliable, reproducible science. The course will not cover data analysis and statistics, but it will emphasize the importance of aligning study design with the intended analytical approaches.

By the end of the course, students will have developed a solid, well-structured study design tailored to their own research, equipping them with valuable tools and critical thinking skills they can apply throughout their doctoral projects and beyond.



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## PROGRAMME

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<b>Wednesday 2nd</b>	14.00-18.00	<b>Experimental design in crop science</b> (Prof. Lorenzo Marini)
	20.00	Dinner together in Padova city centre (included in the fee)
<b>Thursday 3rd</b>	9.00-13.00	<b>Teams at work:</b> PhD students will be grouped into teams and will interact with senior members about the experimental plans of on-going research projects.
	13.00-14.30	Lunch at the Campus
	15.00-18.00	<b>Teams at work:</b> PhD students will finalize their design and will prepare a power point presentation to discuss together pros and cons in the last day
	20.00	Self-organized dinner
<b>Friday 4th</b>	9.00-13.00	<b>Look at our experimental plans</b> Each PhD student will present the experimental plan in a plenary and get feedback from other students and senior researchers
	13.30	Lunch at the Campus

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