

# How to do research

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**Credits:** 3

**Lectures:** 10 lectures of 3 hours each (30 hours).

**Homeworks:** 4 assignments (paper writing, paper reviewing, project writing, presentation).

**Notes:** The course is limited to 10 participants. Priority will be given to first year students.

Attending lectures and completing each homework is mandatory for credit acquisition. Given the limited number of attendees, please register only if you can attend all lectures and commit to the homeworks within the given deadlines.

**Registration:** Students who want to attend the course must register on the link posted on the course web site (<http://retis.sssup.it/~giorgio/courses/h2d/h2d.html>) or by sending an Email to Giorgio Buttazzo ([g.buttazzo@santannapisa.it](mailto:g.buttazzo@santannapisa.it)) specifying the following information:

First name:

Last Name:

PhD curriculum (ES/PR/TLC/DS):

Year of PhD study (1/2/3):

Email:

Availability to attend all the lectures (YES/NO):

## Abstract

The course will cover the entire process needed during a research study, from the initial phase in which a new problem is addressed, formalized, and solved, up to the final phase in which the achieved results have to be communicated to the scientific community. The course is divided in 10 lectures of 3 hours each. It will explain the meaning of research and how to approach the various steps involved in the process. Topics include how to structure scientific papers, organize the different sections, make figures, cite references, and avoid common mistakes. Then, the course explains how the scientific publication process works and how to participate in it, simulating a typical paper selection process of a conference. Other parts are focused on how to write successful research projects and how to make effective presentations, good slides, and have the appropriate attitude when presenting the work. The course will finish by simulating a small conference where each student will present his paper written during the course.

## Course calendar

All lectures will be given at the TeCIP Insitute, Gray Room, on Wednesday, from 15:00 to 18:00.

| Lectures   | Date                         | Topic                                  | Teacher   |
|------------|------------------------------|--|-----------|
| Lecture 1  | Wednesday, January 14, 2026  | The research process                   | Buttazzo  |
| Lecture 2  | Wednesday, January 21, 2026  | How to structure scientific papers     | Buttazzo  |
| Lecture 3  | Wednesday, January 28, 2026  | Writing the specific sections          | Buttazzo  |
| Lecture 4  | Wednesday, February 4, 2026  | The publication process                | Buttazzo  |
| Lecture 5  | Wednesday, February 11, 2026 | Research management & funding          | Cucinotta |
| Lecture 6  | Wednesday, February 18, 2026 | Writing a research project             | Cucinotta |
| Lecture 7  | Wednesday, February 25, 2026 | Peer-reviewing fundamentals            | Cucinotta |
| Lecture 8  | Wednesday, March 4, 2026     | How to make presentations              | Buttazzo  |
| Lecture 9  | Wednesday, March 11, 2026    | Simulating a Program Committee meeting | Buttazzo  |
| Lecture 10 | Wednesday, March 18, 2026    | Simulating a Conference                | Buttazzo  |