UNIVERSITA' DEGLI STUDI DI CATANIA

DOTTORATO DI RICERCA IN SCIENZA DEI MATERIALI E NANOTECNOLOGIE

COURSE DESCRIPTION

Name	Scientific Writing
Teacher(s)	Gaia Tomasello
Email	gtomasello@wiley.com
CFU* (lecture+lab [h])	1 (4h Lecture +4h Lab), …
Assessment **	Written evaluation

* 1 CFU = 6 h lectures OR 12 h in lab OR a combination (3h lectures+6h lab, or 4+4, or 2+8, …)

** it must be within the course duration. Please, indicate: written, oral, by slide presentation.

PROGRAM:

This course is designed for PhD students who want to develop the skills needed to transform scientific results into a clear, compelling, and publishable research paper. Rather than addressing scientific writing only from the author's perspective, the course introduces students to the editorial and peer-review process. Students will learn how editors initially evaluate manuscripts, how reviewers read and assess a paper, why manuscripts are rejected before peer review, and how authors can communicate the novelty, relevance, and scientific contribution of their work more effectively. The course combines writing, critical reading, editorial evaluation, and peer-review exercises, allowing students to experience the publication process from three perspectives: author, reviewer, and editor.

Main learning objectives:

By the end of the course, students should be able to:

- structure a scientific paper around a clear scientific message rather than simply presenting results chronologically;
- write effective titles, abstracts, introductions, results, discussions, and conclusions;
- distinguish between results, interpretation, and scientific claims;
- understand the criteria to select an appropriate journal and understand journal scope;
- understand what editors and reviewers look for during the initial manuscript assessment;
- recognize potential reasons for desk rejection, including poor journal fit, unclear contribution, presentation problems, or insufficiently articulated novelty

- distinguish between major scientific problems and issues that can be addressed through revision;

REFERENCES:

1) Whitesides, G. . (2004), Whitesides' Group: Writing a Paper†. Adv. Mater., 16: 1375-1377.
2) Cargill & O'Connor, *Writing Scientific Research Articles: Strategy and Steps*.
3) https://www.advancedsciencenews.com/peer-review-in-materials-science-5-tips-for-writing-good-reports/
4) https://authors.wiley.com/author-resources/Journal-Authors/Prepare/writing-resources.html.