Course unit English denomination	Research integrity and publication ethics
Teacher in charge (if defined)	Prof. Luca Valentini
Teaching Hours	6
Number of ECTS credits allocated	1
Course period	16-17/06/2025
Course delivery method	☒ In presence ☐ Remotely ☐ Blended
Language of instruction	English
Mandatory attendance	☒ Yes (75% minimum of presence) ☐ No
Course unit contents	The goal is providing young researchers with the necessary instruments to cope with the world of academic publishing. The course will first review the use and abuse of bibliometric indicators, then provide an overview of good and bad practices in scientific publishing. Specific subjects include: - Academic journals: how to be a good editor and reviewer. - Open access: opportunities and pitfalls. - Plagiarism: definitions and detection tools. - Detecting data and image manipulation. - Paper mills: detecting and handling suspected papers. - Citation cartels: establishing fair and virtuous collaborations. - Authorship and author contributions. - Use and misuse of AI. - Social responsibility in science.
Learning goals	It is expected that this course can help PhD students shift their focus from quantity to quality of their academic output. This course aims to raise awareness in the ethical aspects of scientific publishing. The teaching will provide a series of tools for the PhD students to find their way through the world of academic publishing, and understand the possible risks associated with bad publishing practice and academic misconduct. This course will also help distinguishing reputable journals from predatory ones, as well as trusted and reliable collaborators and coauthors. The attendees will develop decision-making skills to tackle and address potential ethical issues in complex research scenarios.
Teaching methods	The teacher will illustrate all concepts inherent in research integrity and publication ethics, providing definitions and presenting a series of case studies

	and potential scenarios. Examples of investigations from famous "science sleuths" will be illustrated. A series of specific tools and platforms (e.g. PubPeer, Google Images, AI-assisted detection tools) will be illustrated and the students will be able to practice in dedicated hands-on sessions. Class discussion on the addressed topics and students feedback will be encouraged. Learning assessment will be carried out using student response platforms. This multifaceted approach to learning will maximize the active involvement of the attendees into a complex topic such as publication ethics.
Course on transversal, interdisciplinary, transdisciplinary skills	☒ Yes ☐ No
Available for PhD students from other courses	☒ Yes ☐ No The course is open to everyone, with priority given to PhD students from the PhD Course in Geosciences. External PhD students who wish to enroll should send an email to dottorato.geoscienze@unipd.it and will be contacted if spots become available.
Prerequisites (not mandatory)	max 3750 caratteri
Examination methods (in applicable)	
Suggested readings	Slides, papers and websites provided by the teacher.