

Scientific Writing for Publication: Essential Skills and AI Tools for Early-Career Researchers

Content

Writing for publication presents early career researchers with a plethora of challenges that arise both from the publication context and from the science they seek to publish. Increasingly, AI tools can help meet these challenges, but such tools can also pose new problems. This course is designed to help doctoral and postdoctoral researchers address these issues with a toolkit of practical strategies. Input includes techniques for

- analyzing which writing strategies are most successful in your specific field and target journal;
- evaluating input from ChatGPT and other AIs to optimize their contribution;
- structuring sentences, paragraphs, and information flow for optimal reader uptake;
- managing the writing process, co-authorship, and the selection and use of AI tools efficiently;
- avoiding typical language errors and redundancies;
- focusing each section of the text to meet editors' and reviewers' expectations;
- preparing a manuscript for initial submission; and
- gaining maximum benefit from the peer review process.

Each workshop involves input, analysis of model texts, and practical exercises including peer review and cowriting tasks. Participants are expected to draft portions of their prospective publication between workshops and will receive detailed individual feedback on these.

Learning Outcomes

By the end of the course, participants can

- define and describe their article's research story,
- identify and characterize target journals,
- evaluate the potential benefits of various AI tools,
- outline and write a first draft,
- manage the writing process efficiently,
- coordinate effectively with co-authors and supervisors, and
- submit articles and respond to reviewers' and editors' comments.

Participants who have already finished their analysis and identified their main findings may be able to leave the course with a complete first draft of their paper.

Individual Feedback

Participants are expected to draft short portions of their prospective publication between each workshop and will receive detailed individual feedback on these. Peer review exercises and other elements also help improve work in progress.

Trainer

[Dr. Simon Milligan](#) has over 20 years' experience as an academic language editor in a range of natural and social sciences and is a member of the European Association of Science Editors. He has also taught scientific writing at the Universities of Bern and Zurich and at the ETH in Zurich for over 15 years. He has developed many writing courses tailored to the needs of specific fields, including applied mathematics, biomedical engineering, biochemistry, chemistry, climate science, computer science, environmental engineering, evolutionary biology, human geography, materials science, neuroscience, philosophy, and psychology.

Target Group

This course is aimed at doctoral and postdoctoral researchers in a range of disciplines: physical sciences of all kinds including earth sciences, computer science, business, economics, and all those working in cross-disciplinary and interdisciplinary contexts. It is particularly likely to be helpful for scientists new to writing for publication.

Requirements

Researchers should have completed data collection and analysis for a research article or conference paper. Researchers should bring laptops or similar devices to class as well as their preparatory or initial work on their publication project.

Before the course, we ask you to identify and obtain at least three model research articles from your likely target journals. You should also submit a short summary (150-250 words) of your prospective article by 09:00 on Monday March 11, 2024. With the summary, please tell us what stage your research and write-up have reached. If there are any specific topics you would like us to address in the course, please list them there. This will help us better understand your situation and meet your specific needs. It will also help us determine if this is the right course for you. For questions, please email simon.milligan@unibe.ch.

Language: English

Participants: max. 15

ECTS: recommended 1

Location: University of Bern, Main Building, Hochschulstrasse 4, room 104

Dates: Tuesdays, 2 p.m.–5.30 p.m., March 26, April 9 & 23, and May 14, 2024