

Scientific Writing and Presentation 2021/2022

Renewable Materials for Healthy Built Environments PhD Programme
University of Primorska Faculty of Mathematics, Natural Sciences, and Information
Technologies

Instructor

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*Note this year, we are merging two classes: Students from FVZ will join the Scientific Writing and Presentation course for the first semester.

Schedule

Class meetings are Tuesdays between 16:00 and 18:00. Meetings will take place over Zoom and in person; links will be provided.

Course outline

The purpose of this course is to assist students in learning the scientific writing process, how to find related and relevant articles, about a variety of article types, article submission, peer-review, proposal writing, and presenting science to a variety of audiences. This is *not* an English language class.

The most important elements of excellent scientific writing are to read (a lot) and practice writing.

Grading

Assignments: 50 %

Final project: 50 %

The Final project will be a 10-page project proposal that addresses:

- Motivation for the study
- State of the art related to the study
- Project contribution to science and society; impacts
- Communication plan
- Work plan
- Should address 2 years of full-time work (i.e., could potentially be submitted to the ARRS post-doc calls)

Details will be provided at Meeting 7.

** Assignment and project descriptions subject to change.*

Course topics

Meeting 1

Introduction to writing scientific publications; important aspects of scientific writing; article types; literature searches;

Assignment 1: the Rhetorical Précis. Use what you learned about searching for literature and select two articles you feel are important for your PhD topic. Write a Rhetorical Précis about each. Due: Meeting 2.

Assignment 2: Form groups of 2; select an article type from the list given in class; Each group should prepare a 5-minute presentation that will be given to the class during Meeting 3. Organise yourselves to avoid duplicating article types.

Resources:

https://web.archive.org/web/20160314125333/https://oregonstate.edu/instruct/phl201/modules/rhetorical-precis/sample/peirce_sample_precis_click.html

*The original link is now defunct, so this link uses the wayback machine. Let me know if you have trouble accessing it. I may need to recreate it eventually.

Meeting 2

More on literature searches. Exploratory vs systematic; Search tools; Using exploratory searches to develop structured searches; PRISMA; tracking and sharing articles.

Assignment 3: Based on your topic, do an exploratory search to identify 10 relevant articles. Use those 10 relevant articles to prepare and perform a structured search in Web of Science. Export the output summary. Due Meeting 3.

Resources

<http://www.prisma-statement.org>

<http://webofknowledge.com>

<https://www.scopus.com>

<http://search.ebscohost.com/>

<https://www.mendeley.com>

<https://www.zotero.org>

Meeting 3

Student presentations; Writing your literature review;

Assignment 4: Write a 2- to 3-page literature review based on your topic; include a well-formatted reference section. Due meeting 5.

Resources

<https://patthomson.net> [excellent writing advice in general; especially literature reviews.]

<http://link.springer.com/10.1007/s13181-012-0234-2>

Meeting 4

About journals; Identifying a journal; Author guidelines; Impact factors; open access, supplemental material; emerging trends (pre-registration; pre-prints; open review); Peer-review.

Assignment 5: Identify 5 journals likely to publish the results of your PhD work, based on scope, article types accepted, and other published articles. Due Meeting 5.

Meeting 5

Sections of journal articles and their contents.

Assignment 6: Write an outline of the remaining sections of an article based on your literature review, based on the author guidelines of one of journals selected in Assignment 5.

Assignment 7: Peer-review a colleague's literature review;

Meeting 6

Writing proposals; Intent of proposals; How do they differ; Identifying funding opportunities;

Assignment 8: Peer-review an original scientific article included in your review.

Meeting 7

Funding agencies; International vs. National; TRL Levels; Deep dive: Green Deal calls; ARRS Post-doc;

Final project: Write an application suitable for the annual ARRS Post-doc call; Details of the assignment. The process will be taken in steps. *Step 1:* Outline your proposal and highlight key literature;

Assignment 9: In teams of 3 (try to form interdisciplinary teams), present the key details of one of a Horizon Europe call.

Meeting 8

Consortium building; what happens when your funding application is granted (contracts, reporting, review).

Student presentations.

Assignment 10: Review two colleague's proposal outline and provide feedback.

Meeting 9

Components/sections of a proposal; how do they differ; importance of communications, organisation of work.

Final project Step 2: complete background and state of the art of the proposal.

Meeting 10

Communications and dissemination in proposals

Final project Step 3: Complete the communications and dissemination section of your proposal.

Assignment 11: Review two colleague's proposals and provide feedback (not the same as last time).

Meeting 12

Formulating a work plan for a proposal. Work packages, person months, tasks, deliverables, and milestones. Gantt charts; Pert charts;

Final project Step 3: Complete the work plan of your proposal.

Assignment 12: Review two colleague's proposals and provide feedback (not the same as last time)

//Holiday (probably about here...)

Meeting 13:

Putting it all together; abstract, keywords, and other components of an ARRS Post-doc application.

Final project Step 4: First complete draft of the proposal.

Assignment 13: Review two colleague's proposals and provide feedback (not the same as last time)

Meeting 14

Presenting at conferences. Structure and narrative. Presentation Zen vs. Death by PowerPoint.

Assignment 14: Students prepare a 3-minute presentation of their current research or of an article relevant to their study if they do not yet have ongoing research work.

Assignment 15: Review one colleague's proposals and provide detailed feedback.

Meeting 15

Student presentations. Students will serve as reviewer/commenters on presentations.

Assignment 16: Students prepare an 8- to 10-minute presentation of their post-doc application.

Meeting 16

Student presentations.

Revised final project due.

Final Project Stage 5: Students will get feedback from the instructors within 2 weeks and have another 2 weeks to submit the final project.