

## Scientific Writing and Presentation 2020/2021

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

### Instructors

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### Schedule

Class meetings are Tuesdays between 10:00 and 12:00. Meetings will take place over Zoom; links will be provided. Classes begins Tuesday, October 6.

### 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.*

## Course topics

### **Meeting 1** (Tuesday, 6. 10)

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 (remote students should pair with local students); 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.

Resources: [https://oregonstate.edu/instruct/phl201/modules/rhetorical-precis/sample/peirce\\_sample\\_precis\\_click.html](https://oregonstate.edu/instruct/phl201/modules/rhetorical-precis/sample/peirce_sample_precis_click.html)

### **Meeting 2** (Tuesday, 13. 10)

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** (Tuesday, 20. 10)

Student presentations; Writing your literature review;

**Assignment 4:** Write a 3- to 5-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** (Tuesday, 27. 10)

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.

**Meeting 5 (Tuesday, 3. 11)**

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 (Tuesday, 10. 11)**

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 (Tuesday, 17. 11)**

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 the green deal calls.

**Meeting 8 (Tuesday, 24. 11)**

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 (Tuesday, 1. 12)**

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 (Tuesday, 8. 12)**

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 (Tuesday, 15. 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

**Meeting 13:** (Tuesday, 5. 1)

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** (Tuesday, 12. 1)

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** (Tuesday, 19. 1)

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

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

**Meeting 16** (Tuesday, 26. 1)

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.