Kwame Nkrumah University of Science and Technology

University of Copenhagen
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Scientific Writing Course

2013

Scientific Writing Course

Description

The aim of the "Scientific Writing Course" (SWC) is to enhance the capability of participants to write good scientific papers. The SWC emphasizes quality of writing and dissemination with a view to improve readability, maximise the contribution of the research done and improve the opportunities for publishing. It also concerns the quantity of scientific production by initially addressing the issue of increasing productivity through peer-guidance, best-practice in organisation of work, co-operation, choice of partners/co-authors and group-dynamics in scientific writing.

The course is highly participatory and takes a practical and applied approach to learning.

Target group

Designed as a module-based learning package which can be applied to a range of disciplinary and research settings, the course will benefit a diverse range of learners including Masters and PhD students as well as early-career researchers and more senior colleagues with some experience.

Duration:

Module 1: 3 days
Interim phase: Individual scientific writing
Module 2: 3 days

Intended learning outcomes

At the end of the course the participant will be able to:

- Describe the scientific writing process and its key stages;
- Reflect on what constitutes a research problem to be addressed in a scientific paper;
- Organize and compose a scientific paper in accordance with the IMRAD (Introduction, Methods, Results and Discussion) model;
- Analyze and review scientific papers in terms of key message, consistency and justification;
- Reflect on the benefits of working in teams in scientific writing and describe the rules of co-authorship;
- Reflect on the ethics in scientific writing

Course structure

The course is arranged in two modules each of three days duration with in-between work on the paper/idea for paper that each participant brings to the course. The in-between work will mostly be an integral part of participants' own research and writing.
Each of the two modules will include lectures, group discussions and exercises. Note that the success of the course hinges crucially on participants showing up, having worked on their

own paper between the two modules as agreed during Module 1 and prepared comments on the work of others as agreed during Module 1.
The course provides a structured setting for learning from others and getting experience.

Course content

The course introduces and discusses the following issues:

- Getting started
- Finding relevant journals and selecting the right one
- Organising your work for productivity and impact
- Team-work in scientific writing
- Producing the outline
- Building the scientific paper block by block (Introduction, materials and methods, results, discussion, conclusions)
- Finishing touches
- Submitting the manuscript
- The refereeing and publishing process
- Plagiarism
- "Salami" papers
- Handling reviewers' comments
- If the paper is rejected, what next?

Teaching/learning methods

The course will encompass specific facilitator inputs (e.g. lecture presentations), combined with a variety of interactive learning activities, including:

- Structured group work
- Group and individual reflection
- Self-study and writing
- Plenary discussions

Assessment

Participants must hand in their first attempt of an abstract and an outline after the first module. Before the start of the second module, the participants must hand in a draft version of the paper they have been working on. The assessment is made by the course responsible based on these outputs. The result of the assessment is passed/not passed.

Materials

The below materials will be made available to the participants, in addition to slides presented during the course:

- Day, R.A. and Gastel, B. 2006. How to write and publish a scientific paper. 6th edition. Cambridge University Press, Cambridge
- Online guide to scientific publication by Commonwealth Forestry Association.
- Scientific writing and publishing results by the Tropical Biology Association