

Akamai University
College of Continue Education
Durham, NC, USA
GTS510 Scientific Writing

Instructor: Prof. Bhandari, And Prof Rizvi

Office hours: Students are always welcome to stop by to discuss the course and concern by email.

Time:

Scientific Writing (2, 0, 1): This course is designed for all interested students and faculty to guide and help them in writing scientific papers, books and reports.

Course objectives:

The participant of this course will have the management and technical knowledge to help them innovate by converting scientific knowledge into useful commercial products, processes, and services. In addition, they will have the scientific research skills required to engage in a corporate or academic career.

This course offers students good practices in scientific and technical writing as they write papers, books and reports or develop research design for projects and theses. The course aims to enhance the capability of students to write good scientific research and to prepare them for their professional lives in scientific and technical fields by helping them organize their knowledge, while exploring ways of applying it, thus developing their professional expertise.

The course emphasizes quality of writing and dissemination with a view to improve readability, maximize 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 and best-practice in the organization of work. Passing successfully this course is a precondition to submit their diploma project or master thesis.

The outlines of the course include how to search the literature; how to structure and write the reports; how to show, analyze and discuss the results; how to extract conclusions; how to use the references and write them, how to write the reports in good format according to the AU guidelines for the preparation of Master Theses, PhD Dissertation and how to prepare good presentations.

ABOUT THIS COURSE

This course teaches scientists to become more effective writers, using practical examples and exercises. Topics include principles of good writing, tricks for writing faster and with less anxiety, the format of a scientific manuscript, and issues in publication and peer review. Students from non-science disciplines can benefit from the training provided in the first four weeks (on general principles of effective writing).

COURSE FORMAT

In the first two weeks, we will review principles of effective writing, examples of good and bad writing, and tips for making the writing process easier. In the second two weeks, we will examine issues specific to scientific writing, including: authorship, peer review, the format of an original manuscript, and communicating science for lay audiences. Students will watch video lectures, complete quizzes and editing exercises, write two short papers, and edit each others' work.

COURSE SYLLABUS

- 1 - Introduction; principles of effective writing (cutting unnecessary clutter)
- 2 - Principles of effective writing (verbs)
- 3 - Crafting better sentences and paragraphs
- 4 - Organization; and streamlining the writing process
- 5 - The format of an original manuscript
- 6 - Reviews, commentaries, and opinion pieces; and the publication process
- 7 - Issues in scientific writing (plagiarism, authorship, ghostwriting, reproducible research)
- 8 - How to do a peer review; and how to communicate with the lay public
9. Writing practice, review of scientific papers
10. Human Subject in Research – how to tackle with it in research

Grading is based on practical writing, as the final paper participant will write an actual publishable scientific paper. Participants can write a sole or jointly with their peers. If participants want, Instructors may join as coauthors for the publication purposes.

PREREQUISITES

The course has no prerequisites other than fluency in English.

FAQ:

Will I get a Statement of Accomplishment?

Yes, students who score at least 70 percent will pass the course.

Students who score at least 90 percent will receive distinction.

How much of a time commitment will this course be?

You should expect this course to require 15 hours of work, however writing paper can take several hours.

Any additional textbooks/software required?

There is no textbook for this course. Students who would like additional reading may enjoy:

William Zinsser (2001) On Writing Well, HarperCollins Publishers, USA
(digital copy is available)

- *The Elements of Style, Strunk and White;*(digital copy is available)

- *Essentials of Writing Biomedical Research Papers, Mimi Zeiger;*

- ***http://www.aacc.org/publications/clin_chem/ccgsw/Pages/default.aspx***

For Human Subject in Research- Human Subjects Research PPT titled: Policies, Clinical Trials, and Inclusion an Overview of National Institute of Health Policies

on Human Subjects- by Lyndi Lahl, is available
https://www.youtube.com/watch?v=RDiqRDI_6s