

Technical Manuscript Writing for Doctoral Candidates

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Module 6. Instructions for Authors

Every journal has its own set of rules regarding the content and formatting of papers. It is essential that the author locate and read the “Instructions for Authors” before submitting the manuscript. Preferably, the target journal is known before the manuscript is written and the “Instructions for Authors” can be read before the manuscript is written at all. The purpose of the “Instructions for Authors” document is to make authors aware of the rules for a given journal. Failure to adhere to even some of the rules can result in the manuscript being rejected without review. Even if the manuscript is reviewed, failure to put the manuscript in a form that makes it appear like it belongs in the journal will likely enhance the probability that manuscript is rejected. Therefore, it is in the authors best interests to read the “Instructions for Authors” document carefully and follow the instructions.

What’s in the Instructions for Authors Document

Typically, in the “Instructions for Authors” document, one finds the following contents

1. Ethical Guidelines
2. Legal Information
3. Style and Formatting Instructions

Ethical Guidelines

Ethical guidelines are included to promote the honest and unbiased reporting of scientific information. It will also clearly prohibit plagiarism of any kind. Finally, it may define the criteria for co-authorship.

It goes without saying that when a reader reads a published paper in a refereed journal, there is every expectation that the article honestly and accurately describe the scientific results. It only takes one transgression, one false report, to completely destroy an individual’s career. There is never any legitimate reason to falsify data. If you have uncertainty in the validity of your data, then you should not report it. Instead, you should repeat the experiment or determine alternative methods to validate the result prior to publication. A rush to publish uncertain data has a high probability of ending in lasting professional embarrassment for the authors.

Journals will not tolerate plagiarism. You cannot copy sentences or paragraphs from another published work, even if you are the author of that work. You must always rephrase the work. If you quote, you must enclose the statement in quotation marks and give the citation for the original work. If you paraphrase, you must give the citation for the original work. On the topic of plagiarism, Turabian writes[1], “You paraphrase appropriately when you represent an idea in your own words more clearly or pointedly than the source does. But the readers will think that

you cross the line from fair paraphrase to plagiarism if they can match your words and phrasing with those of the source.”

There are also ethical considerations regarding co-authorship. Strictly speaking, a co-author should perform three roles.

- (1) A co-author should be involved in the formulation of the problem.
- (2) A co-author should be involved in the execution of the research and/or the analysis of the results.
- (3) A co-authors should be involved in the writing of the manuscript.

To be sure in research teams, the weights of these three roles fall differently upon different members of the group. The first rule is sometimes broadly thought of as including anyone involved in the writing of the proposal that initially formulated the work and practically speaking resulted in the funding of the work. However, that alone is not sufficient for co-authorship. Even if co-authors may not execute any of the research, they must be involved in the analysis. Finally, they must be involved in the creation of the manuscript. Frequently the manuscript is written by a team of two (the graduate student and primary advisor). Once it is in a virtually complete state, the manuscript is sent to the other co-authors for comments, improvements and review. This level of review is perfectly satisfactory for satisfying the third rule of co-authorship. Never submit a manuscript until all people listed as co-authors have (1) agreed to be co-authors and (2) have had the opportunity to review the manuscript.

Finally, there are ethical guidelines regarding the publication of the same work more than once. You should not submit the same work to two journals simultaneously, nor should you attempt to publish the work again, once it has been already published elsewhere. Of course, further analysis of old data may lead to new insight, which is of course publishable.

Some institutions, such as the American Chemical Society have an ethics in publishing document. The ACS has a document titled “Ethical Guidelines to Publication of Chemical Research”, which is available via <http://pubs.acs.org/ethics>, or directly at <http://pubs.acs.org/userimages/ContentEditor/1218054468605/ethics.pdf>. The ACS “Instructions to Authors” document directly refers to this ethics document.

Legal Information

Frequently, “Instructions to Authors” documents provide legal information regarding the transfer of copyright. Journals generally fall into two categories: commercial and open access. Most of the high-profile journals that you would like to publish in are commercial entities, owned either by a private publishing company (e.g. Elsevier, Springer, Taylor-Francis) or a society (e.g. American Physical Society, American Chemical Society, American Institute of Chemical Engineers). In most of these journals, you must forfeit your rights to the work in order to have your work appear in their journal. This is standard practice. You no longer own that content, once it is published. These journals make money by charging for access to their content. Therefore, you cannot reproduce it or post it on the web without the consent of the publisher, who now owns it. In most journals, you submit a transfer of copyright form when you submit the manuscript (before it is even accepted by the journal).

Peer-reviewed open-source journals work on a different concept. These journals give away their content freely. Typically, they are run by professional societies. Frequently, they recover the publishing cost by charging the authors a fee to publish in their journal. Many universities

have a fund set aside to pay for publication fees in peer-reviewed open-source journals, because they aspire to end the economic stranglehold that private publishing companies have on the scientific content in commercial journals. (In other words, many of these publishing companies continue to rapidly increase the charges for access to journals that are essential to research universities.)

A sample copyright transfer form for most of the journals associated with the American Chemical Society is located on the course website.

Style and Formatting Instructions

“Instructions to Authors” documents provide lengthy information on appropriate formatting of text, plots, references, etc. for any manuscript submitted to the journal. In this class we will examine three examples.

Example 1. Journal of Physical Chemistry, an American Chemical Society (ACS) Journal

The Journal of Physical Chemistry B has a website at <http://pubs.acs.org/journal/jpcbfbk>. There is a page with “Information for Authors” at <http://pubs.acs.org/page/jpchax/submission/authors.html>. This page has a link to a document titled “Information for Authors of Papers” at http://pubs.acs.org/paragonplus/submission/jpchax/jpchax_authguide.pdf. A link to this document is located on the website.

This “Information for Authors of Papers” document is 16 pages long. It contains detailed instructions for the proper formatting of manuscripts submitted to the Journal of Physical Chemistry. There is no reason to submit a manuscript that does not adhere to these guidelines except laziness.

We now review the sections of the ACS instructions for authors document.

Example 2. Physical Review E, an American Physical Society (APS) Journal

Physical Review E has a website at <http://pre.aps.org/>. There is a website with author information at <http://pre.aps.org/info/authors.html>. This includes a description of the entire submission process. On this page there is a link to the html version of the Physical Review Style Guide located at <https://authors.aps.org/STYLE/>. A pdf version of this style guide is located at <http://forms.aps.org/author/styleguide.pdf>. A copy of the pdf file is also located on the course website.

We now review the sections of the APS style guide.

Example 3. Chemical Engineering Journal, an Elsevier Journal

Chemical Engineering Journal has a website at http://www.elsevier.com/wps/find/journaldescription.cws_home/601273/description#description. There is a website with author information at http://www.elsevier.com/wps/find/journaldescription.cws_home/601273/authorinstructions. A link to this html document appears on the course website.

We now review the sections of the Elsevier author guide.

References

1. Turabian, K.L., *A Manual for Writers of Research Papers, Theses and Dissertations*. 7th ed. 2007, Chicago: University of Chicago Press.