

# Initial Steps Toward Scientific Writing for Publication

Part of *Technical Communication 3* for engineering undergraduates at Kyushu University

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## Key Points

- This course is the second half of Technical Communication 3 at Kyushu University, to be offered in Spring 2025.
- The course will run for eight weeks. We will be meeting on Zoom or Teams once a week for 90 minutes. A typical class will be a mix of lecture, discussion, and activities.
- The course schedule, credit hours, class timings, and grading scale will be posted on the university course catalog when enrollment opens.

## Expectations

- Use your laptop to join the class. Do not use your phone or tablet. You will carry out real-life scientific writing activities in some of the classes.
- Come prepared to be an active participant. The class is a safe place where you can share your thoughts and questions without being judged. All opinions are welcome.
- You should ideally join each class with your video on, but if you don't wish to turn on your video, make sure that your Zoom or Teams profile has your photo. Either way, please keep your video on during the first class when we get to know each other.

## Pre-requisites

- Completion of Technical Communication 1 and Technical Communication 2.
- Junior or senior standing.

## Learning Outcomes

By participating actively in this course and completing all the activities, you will be able to:

- Explain why scientific writing is important for engineers and researchers.
- Create and manage a personal digital library of scientific publications.
- Effectively summarize a set of science news articles.

# Course Outline

Class	Theme	Topics	In-class activities	Post-class activities
1	Scientific writing for publication	<p>What does “scientific writing for publication” mean?</p> <p>Why does it matter?</p> <p>How is it related to technical communication?</p> <p>What is the typical structure of a scientific research paper?</p>	<p>Get to know each other.</p> <p>Go over the topics that will be covered in the course.</p> <p>Understand the course activities and the grading process.</p> <p>Understand why we won’t be using generative AI in this course.</p>	<p><b>Activity 1</b></p> <p>Glance at the publications posted on the website of any research group at Kyushu University.</p> <p>Answer a few questions to share your impressions of the publications you’ve seen.</p>
2	Collecting publications of interest	<p>Searching for publications related to your current or intended research topic.</p> <p>Building a personal collection of research papers.</p>	<p>Set up Zotero on your browser and your word-processing program.</p> <p>Use an academic database to search for research publications and add them to your Zotero library.</p>	<p><b>Activity 2</b></p> <p>Continue adding publications to your Zotero library.</p> <p>Answer a few questions about your experience of creating a Zotero library.</p>
3	Scientific reading	<p>Strategies for making sense of research publications.</p> <p>Three-pass approach for reading.</p>	<p>Browse some of the papers given by the instructors. Identify a paper to read closely.</p> <p>Share your thoughts before the end of the class.</p>	<p><b>Activity 3</b></p> <p>Finish the reading activity.</p> <p>Answer a few questions about the paper you’ve read.</p>
4	Plagiarism	<p>What is plagiarism?</p> <p>Why is it a problem?</p> <p>How can it be avoided?</p> <p>AI and plagiarism.</p>	<p>Discuss scenarios related to plagiarism, including real-life cases.</p> <p>Start working through Indiana University’s plagiarism tests.</p>	<p><b>Activity 4</b></p> <p>Complete Indiana University’s plagiarism tests.</p> <p>Answer a few questions about your experience completing the plagiarism tests.</p> <p>(continued on the next page)</p>

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5	Summarizing sources	Identifying the most essential information.  Paraphrasing and summarizing techniques.  Citing while you write.	Browse the science news articles provided to you by the instructor.  Understand the course assignment.	<b>Course assignment (start)</b>  Start drafting an article to summarize the science news articles provided to you. Your article should be 500 to 1000 words long.
6	Tables and figures	Why are tables and figures essential in scientific writing?  Techniques to design effective tables and figures.	Go through examples of effective and ineffective tables and figures.  Discuss how to improve the ineffective ones.	<b>Course assignment (continue)</b>  Add a table or figure to the course assignment.
7	Revising your work	Revising — the secret of good writing.  How to check and revise your work.	Continue working on the course assignment.	<b>Course assignment (finish)</b>  Complete the course assignment and submit it before the next class.
8	Best practices	Best practices for scientific writing.  Treating writing as an integral part of a research project.	General discussion on research projects we are doing (or want to do), publication goals, etc.	End of course! You will get feedback on your assignment within two weeks.