

Date: August 3rd, 2023
To: Dr. Sottos
From: Jacob A. Christensen
Subject: Lessons Learned Memo

This letter's purpose is to present what I have learned about writing as an engineer during my time in the Engineering Communication course of Summer 2023 to the MSE department head.

This course emphasized how integral effective communication is for an engineer's success. Many fundamental strategies for writing were discussed as a foundation at the beginning of the course. We learned how communication can bolster an engineer's research when working on a team. Additionally, research results are more impactful when successfully communicated; therefore, we discussed how to tailor writing and presentations for a specific audience. Our strategies were applied to executive summaries, proposals, and even memos like this one.

An engineer may forget or ignore basic writing strategies over time, believing that brute force methods will be sufficient. We learned how to organize thoughts throughout the entire writing process with outlines or concept maps. This workflow is non-linear and may lead to multiple revisions; acceptance of this process can be a baseline for longer research reports done in a class. Often, the first step is to simply get general ideas onto the page, without concern for formality.

The importance of group work was reinforced through our pre-proposal exercise. Tasked with writing a convincing piece about renewable energy, we learned to delegate responsibilities to one another, research a pressing topic, and present the task at hand with current literature, schedules, budgets, and more. We learned through our struggle to keep cohesive flow, communicate clear expectations to one another, and manage conflicts over what content to include. These skills will be indispensable for both academic and industry group work where clear deliverables are essential for getting work done. As research assistants, understanding the different collaborative writing styles helps us approach journal article writing as both authors and co-authors.

What determines a well-written document largely depends on the intended audience. In this course we learned to communicate with audiences ranging from inexperienced management to committees composed of people from various departments. Often, this was done under major constraints such as the classic and brief "elevator pitch". Skills learned here can help us engineers find future jobs, secure funding for projects, and generally express our expertise.

This training will assist me in being a more productive engineer in my chosen field, effectively communicating information. I look forward to applying these skills to my future endeavors.

Jacob A. Christensen