

Comments on the Technical Writing Course

“If you want to learn how to write a good short story, you should go talk with an English instructor. If you want to learn how to write a good technical document, you should go consult with an engineer. “

The technical writing course is part of the CPE and EE curriculums. It is highly doubtful you're going to become a good technical writer by taking a single course taught by **lecturers** hired by the English department. Writing a good technical document takes practice, such as the practice you should be getting writing lab reports. Unfortunately, in most cases in the EE Department, lab reports are either graded by busy students or weighed by lazy faculty. In large labs, such as the digital labs, the lab reports are not required, required and not graded, or not adequately graded. In other words, it's tough to get the feedback you require if you want to learn to write good technical documents.

If you feel like you are a good writer, consider testing out of the technical writing course. The following document was written by a former EE student who successfully tested out of the course. Take a look. This document is also linked on my EE website.

So You Want to Test Out of Technical Writing

By Andrew Ma, c/o 2015

Well, hello there! If you're reading this, you've probably seen this on Bryan's wall or something and are now curious as to how to test out of technical writing (or English 141, or tech writing as I'll be calling it here). If things are still the same way they were my senior year (so, 2015), tech writing is tremendously difficult to get into, with waiting lists out the wazoo, and god forbid if you have a low rotation, because you're never getting into the class that way! If only there were a way you could show your tech writing skills to the English department without having to go through all that! If only, if only.... Well, judging from the title, there IS a way! It's not for everyone, though, so stay tuned to see if this method will work for you!

A quick caveat here for people that are enticed by this opportunity thus far—this will only work if you have some (I'd say 3-4) exceptional technical documents just sitting on your desk ready for polishing. Examples of this, I'd say, include:

- A research paper or other documentation you did for a summer internship
- A paper that you've published in some scientific journal
- A final lab write-up (with analysis and actual words, not just graphs!) from a 400/graduate level course
- A resume (Oh, who am I kidding—It's Cal Poly. EVERYONE has a current resume lying around, right?)

It's also worth noting that I was not your typical Cal Poly student. For those of you who don't know me (so, class of 2016 and beyond), I was a student who did things very much out of order for an EE at Cal Poly. Instead of taking care of tech writing right when I could, I held it off until junior year (because who wants to do tech writing busywork when you could be doing SCIENCE?). Then I didn't get in. Then I tried senior year, attempting to abuse senior "I need to graduate" privilege. No luck, professor wouldn't budge. Well, crap. This was winter quarter of senior year, and I still needed to take a C4 and C2 to graduate. And if Cal Poly hasn't changed, you can't do that without getting tech writing over with. At that point, I decided to screw the rules. **It's worth noting, however**, that I had some extenuating circumstances to sway the Director of Writing into allowing me to challenge, but I'll explain that part later. If there's anything you take away from this, **(for all you impatient people, this is the TL;DR)** it's that you should try to do it the right way first, but if life and your own bad decisions are screwing you over and you've got some great technical papers lying around, give it a shot!

Right, then: so you think you're a pretty good writer and tech writing just isn't relevant to you. You've been screwed over by registration more times than you can count, and you need to graduate. "So," you're yelling internally, "Get on with it!!!! How did it happen?!" I will walk you through the steps that you need to take in order to do this correctly and somewhat successfully. As it was said in *The Matrix*, "I can only show you the door. You're the one that has to walk through it." Good luck!

Getting to the Director of Writing

The first step you'll have to take is to go to the Director of Writing (in the Liberal Arts Office, 47-35F) and tell her that you intend to challenge tech writing by submitting a portfolio of technical documents. Note that she will probably resist allowing you to do it at first. This is the point when you bring up your situation, the reason that you need to do this in the first place. For example, my circumstances were as follows:

- I'm a senior in my second-to-last quarter of college and I'm not going to graduate if I wait until spring.
- I still have some GEs I have to take, and tech writing would just be a liability and an overload.
- Learning how to do technical writing is no longer relevant to me, as I have written formal lab write-ups in senior and graduate level lab courses (i.e. trial by fire).

The combination of all three of these reasons, and particularly the last part of the last reason, convinced her that I could competently challenge the course. At that point, she will hand you a pamphlet that gives you instructions on how to challenge and what steps you need to take. Since I want you to know what you're getting yourself into, I'll attempt to summarize it from memory as best I can.

- Provide a portfolio of 3-4 relevant works (excerpts okay) and a cover letter. The cover letter contains a summary of each work and why you think it's in the best shape for review.
- Have the original version of each work, followed by your revision as done for this challenge. She recommended using the "track changes" function on Microsoft word for this.
- Have some professors sign off on some paperwork (which should be provided) and take the paperwork to the school cashier. Pay \$20 for them to process it.
- Include part of the paperwork in the portfolio and submit it to the English Department office.

As you can see, it's a pretty straightforward process, although a bit time-consuming. I was given a month to complete my challenge, and my personal portfolio contained the cover letter, my resume, an excerpt from my ME 405 lab write-up, an excerpt from my ME 507 lab write-up, and an excerpt from my Senior Project proposal. But you didn't come to me just for the process. Oh no. You came to me for tips. Or... I don't know, you had free time to kill before your professor's office hour and you wanted to read this. Point being is, you're getting tips. I hope you're happy.

Tips:

- **Write to your audience:** “C’mon, Andrew,” you’re telling me, “OF COURSE!” Hear me out. Take some time to really read through your lab write-ups. These technical documents are likely filled with jargon that make sense to you immediately. However, your grader (and therefore, the person who determines your success in this endeavor) is an English professor. Not looking down on them, but they likely have no idea what it means to “simply surface-mount solder the AT644P to the PCB.” **Therefore, you need to allow the document to retain its technical significance while simplifying the language enough for the audience to understand it. If you can’t simplify it, at least briefly define commonly used terms so that they have a cursory understanding of what they are reading.** This may require you to make some oversimplifications. It’s fine. You’re not being graded by an EE professor who has studied the topic for decades, you’re being graded by a person who is simply trying to understand what you said so he/she can grade you fairly according to technical writing standards.
- **Take time to pick your excerpts:** Lab write-ups can be long, some approaching over 20 pages. Your reader will (realistically) get sick of three or four full-length write-ups. Hell, I would get sick of three to four. Picking several sections for **about 5 pages an excerpt** is probably adequate. Read through your papers again and see which sections will be the easiest to modify and reformat for this undertaking. I had a month to complete the challenge, and half of my time went into finding good passages and sections to work with.
- **Get different people to read your work:** Of course, you’ll have classmates or professors reading through your writing, but if you have any friends in a major far, FAR away from engineering, have them take a look too. This will help you to write to your audience, as they will point out technical terms and knowledge in your papers that you took for granted. Have them point out everything in painful detail—it’ll be worth it, I guarantee you!
- **Include pictures:** A picture can easily express your set-up and provide a visual representation of what you are trying to tell them. For things like a PCB layout or a circuit diagram, a picture with a descriptive caption is often much more valuable than rambling technobabble.
- **Get a new, clean folder for submission:** The old saying applies here. It’s your work, so be proud of what you’ve done.
- **Make sure the grammar is top notch:** No explanations needed here. This could be the most profound paper in the world, but someone on the internet would rip it to shreds because you have grammar mistakes.

Well, that’s pretty much all there is to it! Once again, good luck in the challenge, and I hope that it goes well! If you need to contact me for additional tips, questions, or a copy of what I submitted for my portfolio **(for inspiration and guidance only)**, send Bryan a line requesting my contact information (since all relevant personal information will probably be redacted).