

Final Reflection on My 2024 Summer Enrichment Experience at the Washington University College of Arts & Sciences Pre-College Program

By Seth Daniels

My experience at Washington University was certainly an academic challenge! Those two weeks demanded more of my mind than I had experienced before in school. The point of the program was to analyze the publications of others and draw connections between different ideas, then to extrapolate something new from what is already known. While this does not necessarily grant me lab experience, which I had hoped it would, it still provided me valuable experience in a variety of ways. It allowed me to feel the rigor of a course designed for college students, I was able to pursue learning about something I am very interested in to a degree that I never had before, I learned about how research is at the heart of the universities, I learned how to write quickly and effectively, and I learned both what constitutes a meaningful contribution to a field of study and how to make said contribution. All throughout the program, we were encouraged to collaborate with others and give constructive feedback on each other's projects. Doing this helped me learn a lot about how other people approach certain problems and ideas, it even helped me realize some interesting things about my own topic of research. For example, through my research and the points of some of my friends, I learned that my position of full transition to molten salt reactors for power may not be the most economical option. Rather, replacing coal, natural gas, nuclear, and other forms of energy that provide baseload grid power with molten salt reactors and limiting, but not reversing, the expansion of renewables.

I know that I at least met the expectations of the program. My professor's critiques on my writing were often minimal and mostly pointed to formatting and execution of ideas rather than any more fundamental misunderstanding of the material being discussed. One exception of this is where Ms. Waters, in her review of my presentation, drew my attention to places where I could have connected my sources to the topic better and provided more explicit citations. Despite this, I largely performed as expected and received positive attention for my efforts. This program is typically five weeks with one hour of class per day, it is now two weeks with four hours of class per day. Suffice to say, there is a lot more work per day to do. My previous statement of one hour of homework per day was a minimum, and it often exceeded two hours per day for me. One thing about this, however, is that this is definitely a program where you get out what you put into it. I spent a lot more time and put in a lot more effort than some of my peers. The course is pass/fail, meaning you either get 100 percent of the work done and pass, or you get less than 100 percent of the work done, and you do not pass. If the completed work is not to the standard of the professor, then she will mark it as incomplete and allow the student to try again. I was never required to go back

and re-do an assignment marked as incomplete, but I know a few people who were required to do so.

Ms. Waters always described the course as a “hands-on, crafts” class, in the sense that we were all working to construct a presentation and describe in painstaking detail how the things we were researching contributed to our original interpretation. I believe I was adequately prepared for this program, as I encountered a non-negligible number of people who could be accurately described as less prepared for the program than I was. Like I said, this has been something where reward is nearly directly proportional to effective effort.

One of my favorite aspects of this program are the people who I got to meet. I had many pleasant conversations with professors and undergraduate students that left me with a greater understanding and appreciation for the culture of universities and the opportunities both at Washington University and campuses all around the country. I met a student researching the production of a biologically produced and biodegradable plastic and we had multiple long conversations about each other's engagements and plans. I also spoke with multiple other students that really proved to me the quality of the community and education at WashU. Ms. Waters is an English professor, and I seemingly inspired her to read my favorite book, *Crime and Punishment* by Fyodor Dostoyevsky, after we were talking for a while about some of the readings she had us analyze in class.

I do not know if there is a single action or series of actions that I did that I can describe as my greatest accomplishment during the program. Everything I did during that time was on relatively equal magnitude. This was a period of high levels of stress, which is not necessarily a bad thing, so much of what I did blends together into categories of actions. I usually did these academic things, I usually did those social things, I often used that networking strategy, etc. One thing that I can point to as something that I am proud of and glad I did is sacrificing some of my experiences with my friends to get work done. I still had many responsibilities aside from the program and it was no easy task to properly manage them while performing well in the program. One example of this is my online statistics course through John A. Logan. One night I had homework and a quiz due that I did not have done. While I had enough time to finish these things before the deadline, I was too burned out to think properly. I took the final exam for that class yesterday and my final grade in the class was an 89.

On that note, I think one of the most valuable things I learned from this program was my limits. I was under pressure from my friend group, the research deadlines, statistics deadlines, furthering momentum in summer preparation for Maker Club and SkillsUSA, helping my long-distance friend through some of her troubles (which is no insignificant task), having my own personal emotional crisis, and I am sure some other factors which are not coming to mind right now. The results of these things is my first B since entering high school, a highly-damaged sleep schedule, about six people who I can confidently reach out to

if needed, new recruits into SkillsUSA, more development in the plans to make my clubs a formidable force in the next school year, a stronger relationship with my friends and girlfriend, a better developed sense of responsibility and work ethic, and newfound respect for myself and what I can achieve while under immense pressure.

I think the most difficult thing for me was managing my sleep schedule. I now have an appreciation for how difficult it is to be successful in many things while getting a proper amount of sleep. I found myself working so hard during the day that I felt like I needed to stay up to play and have a little bit of fun. This is something that I expect would phase out over time. The adrenaline of being in a completely new environment kept me working for the first week and some of the second, but I quickly found myself burned out and wanting to spend more time on social media rather than getting sleep. I expect this is something that I would stop doing if I had more time to adjust, or I would force myself to stop by deleting apps and such.

I would certainly recommend this program to a future Garwin Family Foundation student! I have to emphasize that this program is not lab-based but that does not mean STEM-focused students like me cannot tremendously benefit, both personally and academically, from it!