

Final Reflection on My Summer 2023 Enrichment Experience at the Michigan Math and Science Scholars Program

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Attending the Michigan Math and Science Scholars Program (MMSS) this summer has been a beneficial experience. I attended MMSS's Dissecting Life: Human Anatomy and Physiology program where participants had to identify different systems of the human body, such as the integumentary and renal system through lectures and in-person dissections, as well as different activities the instructors led. This was meaningful to me because I hadn't had a dissection experience prior to that one.

The course I took had a structure where participants would attend a lecture for 3 hours (from 9-12) in the morning and then dissect for three hours (1:30-4:30) after lunch. The Medical Sciences building was a bit far from the dorms we were staying in so every day, we scholars had to transfer by ourselves, which was a new experience for me because I am not the best with directions. Sometimes we would choose to walk to the building or take the bus. If we used either method of transportation, we would have to manage our time well because our course building was one of the furthest from the dining hall so we had to time our arrival at bus stops, take traffic into consideration, and weather conditions. Either way we had to adjust quickly because we were only shown directions the first day and expected to find our way to the Medical Science two building from there.

This mindset followed during the lectures as well because every week day two lessons were crammed into three hours. We were placed into a college setting and held to high standards by our instructors so we didn't have time to wait around and had to immediately take notes and ask questions. The lectures were so fast-paced, but thankfully the instructors set up case studies, check in questions, and quizzes for us to reinforce our understanding of the lessons.

Throughout the duration of the course, we learned two systems each day which were accompanied by dissections where we would identify different parts of the system and practice different procedures like blunt dissecting certain layers in order to not damage the specimen and knowing when to use scalpels. We also used forceps to gently pull apart layers of skin.

On the first day we were taught lab safety rules and given warnings. We had special lab coats we wore and were advised to wear long sleeves and pants in order to ensure our safety by protecting our skin. We were shown where the gloves were, where to clean off the tools, and where to wash our hands. The instructors were very forthcoming and gave us permission to leave at any point when the dissection became too much for us. This was helpful because it let us know that you don't have to be omnipotent and made dissecting seem like less of a daunting task.

Towards the second week we were able to see human cadavers. It was respectable that there were brave people who would donate their bodies for science. Thanks to donors like them, the field of science has been able to expand more rapidly as scientists gain more information about the human body and its functions, as well as its structure.

Besides lectures and dissections, some days we would also do activities like identifying different structures on skeletons or recreating structures using pipe cleaners. These interactive lessons were very helpful in adding to our understanding of the specific systems and how they carry out their functions.

Besides just learning about the systems we were also tasked with a group project where we had to research two systems we were randomly assigned and make connections between the two in order to establish why it is essential to the function of the human body that those two systems work well together. My group selected the Nervous and Integumentary system. We had to prove why our two systems were essential by using clinical studies, such as diseases or cases related to sensory nerve receptors in the skin not functioning how they're supposed to. We used techniques such as making comparisons between the body's capabilities with and without our systems.

I had a couple of late nights editing my slides, as did my group mates. Our TA's and instructor opened the floor to us to ask them questions about college and how they chose their careers. We heard many different stories about their processes starting from the end of high school. It was very helpful for me, especially because I'm going to college. They also made it clear that we can communicate with them after the program, which gave me a similar sense of community to the one that GFF gives to the scholars it sponsors.

It wasn't just my instructors and TA's that showed their passion but counselors as well. I remember my friends and I listening to Ms. Lisa Bain tell us about her graduation process and application stage in one instance. There were many more counselors and other instructors who gave participants the same opportunity to communicate and advise them on college and careers. One thing I am keeping in mind as I apply to college is that your path is never rigid and you'll never stop learning.

Besides just the education aspect of MMSS, we were able to meet different groups and types of people. The program has people from all over the world and the US. There are people from Dubai, Canada, California, Washington, Greece, and South Korea, as well as other places. Also, it was nice working with other people who are interested in the same topics as yourself. This was exciting because it's not every day, especially during high school that you are able to meet so many people with different backgrounds and cultures who share similar interests.

We were also able to attend weekend excursions and the counselors held fun events during the weekdays. There were so many places downtown to visit, so we were not always cooped up in the dorm. One night a couple of other girls and I walked down to a boba place in town and just hung out and afterwards we stopped at Target, which was really fun. The program gave us so much freedom to roam as long as we stayed in bounds. Also, while we were there an art fair happened and we were able to see so many different pieces and booths.

It wasn't just outside the dorms where the fun was, the counselors also planned activities like Murder Mystery Night and Hustle Night, just to name a few. In addition to the events and activities, the weekend excursions that were available were fun to participate in. I went on thrilling rides at Cedar Point and went on scary rides and explored the Detroit Art and Science museums over the weekend, which was really fun. I was able to take so many photos and learn so much about the progress that people make in a time as short as two weeks.

One thing I took away the most from this experience is that there are so many things you can learn and experience if you just network or change your view of a subject and not everyone has the exact same experience but they still learn and end up where they need or work hard to be. I found my passion and love of learning again through attending MMSS. I had grown tired of the constant monotony of school and missed the fun of learning new concepts and practicing skills which I did through attending MMSS. I would recommend this program to anyone interested in experiencing campus life early on and motivated enough to manage fast paced lessons. You can gather that I grew a lot from those short two weeks at MMSS.

I did more than just study the whole time, but also made long-lasting friendships, expanded my network by speaking with instructors and TAs, as well as found a stronger passion for the scientific field, and learning, than I have felt in a long time. This was all thanks to the Garwin Family Foundation for sponsoring me. I was given the opportunity to go to places with more resources to practice what I learned here in Carbondale and apply it in different settings.