



MADELYN

PHYSICS

ABOUT MY MAJOR

Physics is the study of physical laws and the universe. But for me, I think physics is more about exploring the unknown. There's a lot of things about physics that still are unknown. I chose Physics because I liked how much there was to learn. It's a complicated major, but I think once you get into it, you realize just how vast it is.

CHOOSING MY MAJOR

I took a physics class as a junior in high school and when I was deciding which classes to take as a senior, I couldn't see myself taking any other science class - I just loved physics! After taking classes in high school, I realized I wanted to continue studying physics in college. It was slow at first, but I realized that I really enjoyed learning more and more. When I was a junior in high school, I read my physics textbook for fun. I had never done that before - I'm not one of those types of people to read a textbook for fun! Physics had the power to just take over my mind and pull me in further.

STUDENT ORGANIZATIONS

I'm the president of the Physics Club. It's been a great way to meet more people and get a lot closer with some of my peers. We went to Washington DC for PHYSCON 2022 and I helped plan a lot of that, which was really fun. I've really enjoyed helping other people make connections, as well as make connections myself, make new friends, and talk about physics.

UNDERGRADUATE RESEARCH

Research is a huge part of Physics at UNI. In my freshmen and sophomore years, I worked with a professor to do computational physics research. The summer after my sophomore year I did a summer research program at UNI, focusing on physics education research. I helped plan and put together a class that was being offered to secondary science teachers who were getting their endorsement in physics. I sat in on the class and recorded things for the labs. I wrote some lesson plans and also looked at assessment data and compared it with data from when the class was offered in-person pre-COVID. I looked at the difference between in-person and virtual learning and presented my poster and gave a presentation about my research and wrote a research paper.

The summer after my junior year, I participated in a research experience for undergraduates in physics. It was organized by the NSF. Basically, you apply to different schools and go to a different university to do research there. Through the University of Michigan, I was sent to Paris for two months to do physics research. It was an amazing experience because my minor is French. I was able to use my major and my minor all in one! The research involved optics, which was the main focus of the program. I got to do hands-on optics research, and we used an inverted microscope and a laser. I got a wide variety of skills, research-wise!

CAREERS

I'm trying to decide between going into medical physics, which means going to graduate school, or working for the government at the Patent Office or something similar. Working at the Patent Office would involve reading applications for patents that people submit, especially ones related to physics. I would then decide whether the application can be accepted, needs changes, or is rejected.

Beforehand I was not thinking about applying to graduate school at all. But after going through the Physics program and working at UNI with other graduate students, it really pushed me to apply to graduate school because it was overall an amazing experience.