## Claire Martin

## Honors Capstone: Spring 2023

My capstone research focused on how a sling on the dominant arm impacted the gait of college aged students. This idea came from an article read and researched during a Research Methods class. The inspiring research looked at how a sling increased the risk of a fall in the geriatric population. My research focused on the mechanics of how a sling changes a person's walk and balance in college students.

The research topic chosen was perfect in that the university's exercise science lab had all the necessary and desired equipment to start the research and investigate the topic at all angles. We looked at stride length, hip rotation, muscle activation, and how the forces applied to the ground by the foot changed. However, the limitations were that most of the participants we studied were athletes or were athletes at some point in their lives. Athletes tend to adapt very well to changes in their environment and athletes also have more than likely been in a sling at some point. The second limitation, although unavoidable, was the environment. When participants are placed in a research environment like that and are told all the things that will be monitored and watched, they tend to change the way they typically do things. For example, we were studying gait and participants tended to walk very slowly and carefully once they were told what was happening.

Although this topic has been researched before, it was with a geriatric population and this capstone was done in the young adult/college aged population. In the initial development of this topic, I was unable to find any research on this topic. However, no significant findings were found during my research so nothing was added to my field's existing knowledge.

Overall, this capstone was amazing to complete and work on through the semester. I love the topic, I work well with my mentor, and I had fun being able to use what I have learned in class to collect and read my data. It has been one of the most rewarding things I have completed in my college career.