**IST 511: Assignment 1**

**How does interdisciplinary research differ from what you normally learn and do?**

In most academic and research settings scholars study a single discipline. This would include the major disciplines that have been built upon for hundreds of years like Philosophy, Physics, Biology or Anthropology. Interdisciplinary research differs in that it combines two or more disciplines to explore research questions in a way that might not be as easy to answer without an interdisciplinary focus. With the massive amount of research scientists have had to become more and more focused on a very small question in order to contribute something new to their field. By taking an interdisciplinary approach that more resembles our interconnected world it is possible that new ways of looking at problems might lead to exciting new research.

**Why is interdisciplinary research appropriate for what you want to study?**

For me I feel that the fields of Computer Science and Biology (specifically Biological Oceanography) could greatly benefit by combining them with an interdisciplinary focus. I feel that Biology will be my primary field but that I will be able to hopefully explore new uses of artificial intelligence in biology. The research questions might end up being more suited for one field or truly bridge them. An example of this is the development of neural networks taken from the field of biology and then utilized for deep learning, which is a powerful artificial intelligence field.

**What problems can you anticipate in what you will eventually study (research, writing, methods, working with faculty from different disciplines, other challenges)?**

To me I think the biggest issue will be finding faculty who can work with an Interdisciplinary student. Luckily at OSU the Collaborative Robotics and Intelligent Systems has a lot of faculty in both the disciplines I am interested in doing interdisciplinary research. I also know that with my goal of gaining a PhD I will need to pick one field to apply to and it may be difficult to convince a faculty member to accept an Interdisciplinary Student as opposed to one with a pure master’s degree with a focused discipline.

**What are the strengths and weaknesses of the reading, and how may it be applicable to your studies?**

I found the reading mostly had strengths the only weakness is I felt that it was very in favor of interdisciplinary research, which I am too. However, I do feel that whenever you swim against the current you can be faced with new challenges and hurdles. I liked how the reading compared established disciplines with interdisciplinary research. It had seven areas it looked at but I found the exploration of methods utilized and the way these fields produce new knowledge to be very useful.

I also thought the readings discussion on finding common ground was very strong. The reading discusses how this is something the interdisciplinary researcher must create. I feel strongly that this is true as I have already been trying to determine just how I can do interdisciplinary research that does not just pull the methodology from one field (Computer Science) and apply them to purely Biological research questions. I think that if I create common ground among faculty it will enable me to truly pursue an interdisciplinary research question utilizing methods and prior research from both disciplines.