

**Reflective Essay: Course Overview**

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IDS 493

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## Opening

IDS 493 is a class designed to ensure that we as students are not only able to document and present our work but also to learn how to do so in a professional manner. Throughout the course, there was a stress on integration and how our learnings could connect to help further our knowledge. Our e-portfolios also demonstrated this by utilizing our combined works and disciplines which in turn have developed a powerful resource for employers to see and for us to reflect on. My best work has been documented within my e-portfolio as a tool to help me navigate and find my career interest based on this performance. Given that some disciplines in the major present different career opportunities it has been hard for me to pinpoint a specific path I have wanted to work in.

After the culmination of several documents and classes within my portfolio, I have been able to narrow down a few options as to what I might like to pursue. Given that I have taken several cyber classes with different learning goals, I was most drawn to the analytical side of the industry. That relates back to how the class used my ability to take multiple disciplines within the same career yet develop results in the process. My other developmental acknowledgment was realizing that there were other factors which an interviewer may be interested in.

The addition of the e-portfolio with my resume will help in the interview process given that it is a resource which highlights my skills and experience in college and any other future endeavors. My work demonstrates my different understanding of my major and has shown my improvement over my college career. The course work will show my employer that I have put a

lot of effort into my learning and that I have great discipline. A lot of what I have studied has several uses in the workplace, but our class has also discussed other factors in the hiring process.

One of which was the use of personality quizzes to learn about the person's behaviors to see how they would fit within the hiring process. The 5 big traits that we studied were openness to experience, agreeableness, conscientiousness, negative emotionality, and extraversion. Given the nature of the job, the employer may be more inclined to hire someone who fits certain traits. With my career, for example, an employer would look for someone open to experience, who has a proficient level of agreeableness, who can communicate when needed (which would require extraversion), and someone conscientious. Most of my traits would be considered positive and would fit my future job role based on my results.

My scores indicate that I have a keen sense of creative imagination, a mid-level aesthetic sensitivity, and a strong intellectual curiosity. It also has shown that my level of Compassion, Respectfulness, and Trust for others is at an elevated level. These traits could be essential in a work setting that seeks teamwork, problem-solving, and divergent thinking. That fits my major perfectly because I would be working with a fast-paced team and would often have to solve problems with difficult solutions. The class also challenged us to create a personal narrative, which would capitalize on our lives and dig deeper into the reasoning behind our career choices and behaviors.

My Narrative was developed with a casual tone to maintain a more relatable theme. We discussed how this could make our story a better read overall and would intrigue our audience even more. However, my topics were meant to help me connect my decisions and motivations to build a keen sense of self-reflection. Developing my narrative was much easier than I had expected given that my family has always had a strong influence on the decisions I make. Since

they are successful individuals, I find it easier to follow them. Furthermore, I took by my dad's example and became very intrigued with technology.

To continue with my reflection, this course allowed me to look back at previous work as stated before. In turn, I was given a chance to look back at the skills that I acquired as a student. Some of which were scripting in Python and Linux, learning how to use Wireshark to trace packets from threats, and the use of John the Ripper for ethical hacking. I am proud to have developed these skills and they will make a fine addition to my portfolio. With the support of certifications, my portfolio will be an asset when highlighting my skills.

My experiences continue to certify change in my academic progress and help me to feel more confident about my future career. Most of my learning took place online, however, when I was on campus my classes ensured that I was prepared. For example, I was given a task to create a network for one of my buildings which I was able to understand better with the support of professional help. My teacher invited a guest in charge of ODU's network architecture. He showed us how networking worked throughout the building and campus to better understand the assignment I had to complete.

Another notable example would be when one of my professors required that we find information quickly as a group and present it as a class all in about 15 minutes. These are what he considered real life skills and without this form of instruction, I would not have the confidence I have today to do something to that degree. A big part of being a cybersecurity student is communication and presenting ideas to groups. It is a key role for which I am now more than capable of filling after a long college period of preparation. As for key takeaways from my major, there have been a few that stand out.

## Research

The CIA triad consists of confidentiality, integrity, and availability which are all a basis for the protection of data, information, and physical systems. (Shao, 2022) This model highlights the importance of threat prevention and what to look for to do so. Confidentiality highlights the importance of ensuring information is only accessible to those authorized to read or write information. Integrity ensures that information is maintained and does not change with enforced security. Availability requires that the information be available to those who have access and can view and write it when asked for. (Wang, 2019)

There are also a few main vulnerabilities worth noting when it comes to these types of attacks. The 3 key vulnerabilities that are worth noting are New Browser Vulnerabilities, New Zero-day Vulnerabilities, and Malicious Web Domains. New browser vulnerabilities entail attacks that were done through web browsers. The main culprits for these attackers are hackers who hijack the user's systems and use them to gain information. (Jardine, 2015) Another vulnerability would be zero-day which means that the attack is done in means that is unheard of. Finally, Malicious Web Domains refer to attacks that involve web domains that were created with ill intent and are used to attack a user.

As for Mitigation, the best things a company can do are teach employees cyber safety techniques, hire a cyber security team for planning and prevention, hire a network admin to protect systems utilizing Firewall restrictions and manage computers by monitoring them.

(Bakalovic, 2020) Another important thing is to make sure that passwords have strong encryption requirements such as longer character requirements and specific characters required. (Żebrowski, 2022)

### **Reflection Cont.**

I was able to break my research into 3 significant parts, important protocols, understanding vulnerabilities, and mitigation techniques. My research came from multiple sources of my work which I believe are the most valuable bits of information that I have learned during my 4 years of college. It is also important to note that everything I mentioned was a recurring topic throughout most of my classes. It is why those topics were the most important and worth mentioning most often. Another key point that my classes ensured to include was to carefully plan to prevent attacks. However, there will be some options that are not able to be avoided considering new, unknown attacks happen so frequently.

This I felt was an important lesson because my family often uses the saying “stay ready so that you don’t have to get ready.” To reiterate, this does not solve new unknown problems but being proactive will bring about innovative solutions to unexpected situations. My family has several words of wisdom that often correlate with a successful and positive lifestyle. Their words stretch further than that though, as I see their words connecting to work trends and tips. With that, I have a lot of respect for my family, of which I hold immense value.

### **Conclusion**

Given my time on campus, I have come to learn several different lessons and strategies on how to become a better worker in my career. Several of my classes have prepared me for many different challenges and have also given me tools to combat them. Overall, I have taken my time as a student very seriously and have grown leaps and bounds mentally. My professors have done countless things to prepare me for the future and continue to do so given the resources that are left over. These resources are available within my e-portfolio and will continue to both teach me and improve my odds of receiving the career that I desire. This course has given me several opportunities to put my work into a single compressive web document to aid in this as well as to think critically while doing so.

## Works Cited

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