**Coleman Post Sabbatical Report**

**Preparation and planning for the sabbatical**

* The Computer Technology (CTEC) department is currently offering CTEC 133 – Security Fundamentals and/or NTEC 125 – Information Security Fundamentals for the AAS degree. These classes are used as a foundational introduction to Information Technology (IT) security. As we are moving toward an AAT degree with our guided pathways, we are updating to an advanced security curriculum. We have chosen to use both the CompTIA Security+ and CompTIA Cybersecurity+ Analysis (CySA+) objectives for several reasons
* These classes will prepare the students to take CompTIA exams which are vendor-neutral, industrial recognized performance-based IT certification exams
* CTEC 233 - CompTIA Security+ will expand students’ skills by focusing on the latest trends and techniques in risk management, risk mitigation, and intrusion detection.
* CTEC 235 - CompTIA Cybersecurity Analyst (CySA+) focuses on performing data analysis and interpreting the results to identify vulnerabilities, threats and risks to an organization, configure and use threat-detection tools and secure and protect applications and systems within an organization.
* Contacted multiple vendors and publishers for material such as books, instructor resources, and testing material. This includes, TestOut, Practice Labs, CompTIA, Wiley, Cengage and Pearson.
* Purchased Exam Certification Vouchers from CompTIA. Good for one year.

**Project products and/or accomplishments**

* Two Canvas shells, one for CTEC 233 and one for CTEC 235 are under construction.
* Both syllabi for Security+ and Cybersecurity+ have been created.

**Research (Include any focused reading or studying as well as any more formal research.)**

* My gaining familiarity with the COMPTIA curriculum gave me a chance to survey several curriculum delivery tools and resources. These include: CompTIA Certmaster Practice testing software, CompTIA Learn, Cengage Mindtap and TestOut. All these products contain assignments, videos, and simulated hands-on lab assignments. Evaluated Practice Labs that contains access to virtual servers which offers practice on actual equipment used in industry.

**Self-enrichment**

* I better familiarize myself with the curriculum, the ways I can deliver the material and the resources that are offered from multiple vendors.
* It was an excellent opportunity to practice and prepare for the certification exams myself
* I was able to get both the CTEC 233 and CTEC 235 Canvas course shells started from scratch. I am using this opportunity to add relevant, current hands on labs and assignments to the curriculum.
* I went to a Focus on Learning workshop on Transparency in Learning and Teaching (TiLT) on developing assignments to work better. I will use the template to design easy to follow assignments
* There is still a lot of work to do, but I made significant strides important to the curriculum with respect to the two courses.
* I had the very good fortune to go to the CompTIA Partner conference that helped reinforce the directions I explored and introduced me to some additional options as well as the ability to network with some of my peers.
* The project gave me a chance to take care of myself physically. I put in over 1600 miles over 14 weeks to prepare and ride my bicycle 206 miles from Seattle to Portland (STP) in two days.

**Provide a weekly chronicle of your sabbatical activities.**

|  |  |
| --- | --- |
| Week of: | Activity |
| 4/7/19 | CompTIA Learn Intro |
| CompTIA - Lesson 1: Indicators of Compromise |
| CompTIA - Lesson 2: Critical Security Controls |
| CompTIA - Lesson 3: Security Posture Assessment Tools |
| CompTIA - Lesson 4: Incident Response |
| CompTIA - Lesson 5: Cryptography |
| 4/14/19 | CompTIA - Lesson 6: Public Key Infrastructure |
| CompTIA - Lesson 7: Identification and Authentication |
| CompTIA - Lesson 8: Identity and Access Services |
| 4/21/19 | CompTIA - Lesson 9: Account Management |
| CompTIA - Lesson 10: Secure Network Design |
| CompTIA - Lesson 11: Firewalls and Load Balancers |
| 4/28/19 | CompTIA - Lesson 12: IDS and SIEM |
| CompTIA - Lesson 13: Secure Wireless Access |
| CompTIA - Lesson 14: Physical Security Controls |
| 5/5/19 | CompTIA - Lesson 15: Secure Protocols and Services |
| Gmetrix Security 1 |
| Gmetrix Security 2 |
| 5/12/19 | Gmetrix Security 3 |
| TestOut Ch 1 - Introduction |
| TestOut Ch 2 - Security Basics |
| 5/19/19 | TestOut Ch 3 - Policies, Procedures and Awareness |
| Test Practice Lab Virtual Machines |
| 5/26/19 | TestOut Ch 4 - Physical |
| TestOut Ch5 - Perimeter |
| 6/2/19 | Chapter 3: Understanding Devices and Infrastructure (Wiley) |
| Chapter 4: Identity and Access Management (Wiley) |
| Test Practice Lab Virtual Machines |
| 6/9/19 | TestOut Ch6 Network |
| Work on Security+ Canvas Shell |
| Work on Cybersecurity+ Canvas Shell |
| 6/16/19 | TestOut Ch6 Network |
| Work on Security+ Canvas Shell |
| Work on Cybersecurity+ Canvas Shell |
| 6/23/19 | Review TestOut Glossary of Acronyms |
| TestOut Ch7 Hosts |
| Work on Security+ Canvas Shell |
| Work on Cybersecurity+ Canvas Shell |
| 6/30/19 | TestOut Ch7 Hosts |
| TestOut Ch8 Application |
| Work on Security+ Canvas Shell |
| Work on Cybersecurity+ Canvas Shell |

**Restate your sabbatical leave objectives as stated in your original application and elaborate on whether or not you met each objective you intended to accomplish. (\*Original application text)**

* **\*Audit existing curriculum and find best practices from other institutions**
  + I found a vast amount of material that could be used for either or both classes.
  + I was able to network with my peers to observe how they taught and presented the material to their classes.
* **\*Attain Cloud+, Security+, and/or Cybersecurity+ certification(s)**
  + I am scheduled to take the Security+ at the end of September 2019. More certs to follow.
* **\*Attend security conference(s) for material, methods of delivery and networking with like minded instructors (Will try to find conference that is within the time restrictions)**
  + Attended CompTIA Partnership Summit from June 6 thru June 8, 2019.
* **\*Build operational Canvas shells for Security+ and Cybersecurity+** 
  + Two Canvas shells, one for CTEC 233 and one for CTEC 235 are under construction.

**Describe how your sabbatical activities benefit the students at Clark College.**

* The new AAT degree includes stackable/hierarchical certifications that will work for all levels of experience from core skills up to IT professionals (See figure 1)
* Investigated how to survey and connect with the content that is important for these certifications to see how they can be delivered best to our students.

Figure 1- CompTIA Stackable certifications

**Describe how your project will add value to the College and your instructional division or department.**

* The AAT program will be in alignment with the proposed Bachelors degree in Cybersecurity Computer Support. AAT students will be better prepared to make a decision on whether they have the interest and aptitude to pursue the BAS in Cybersecurity when it comes on line

**If applicable, explain how your sabbatical project added or enhanced any previous professional work that you might have completed or performed.**

* I have the foundational Microsoft Technology Associate (MTA) Security Fundamentals certification. Studying and attaining the CompTIA Security+ and Cybersecurity+ certifications will enhance the content of the AAT degree.

**List any institutions or other organizations which were affiliated with the project.**

* None

**List any other grants or stipends that you used for your project.**

* Money from the department budget was used to attend the CompTIA Partnership Summit
* IFDF funds were used for the purchase of the CySA+, Security+ and Cloud+ certification vouchers
* No grants were used for this project

Provide a copy of your original application with this report.

[See linked document](https://drive.google.com/file/d/1OtD7ADBv4vqDmU94mwj_Fzy1T9vEfnko/view?usp=sharing)