# Academic Programs Subcommittee Meeting Minutes October 27, 2020

**Voting members present:** Melissa Goldsmith, Kelly Leslie, Shujuan Li, Todd Lutes, Gil Ribak, Suzie Weisband

**Non-voting members present:** Stephanie Carlson, Liz Sandoval

# Voting members absent: Fabian Alfie, Holly Nelson, Anthony Sanchez

1. Stephanie Carlson called the meeting to order at 3:45 PM, with a quorum of 6 voting members.
2. Approval of September 22, 2020 Meeting Minutes

**Suzie motioned to approve minutes. Todd Lutes seconded. Approved with 5 yes votes, 1 abstention.**

1. Consent Agenda
   1. Modification of BS Neuroscience and Cognitive Science, College of Science

# The consent agenda was approved with 6 yes votes.

1. New Action Items
   1. Certificate in Cyber Defense, College of Applied Science and Technology-Jason Denno

The aim is to make a defensible network, starting with the machines themselves, Linx or Windows, to find all the places an attacker can gain access, then “harden” them by closing ports, or deleting things that are not necessary. Basically, building the structure of the machine, making them defensible. The same goes for the Network though the Network Analysis course. This certificate’s courses expose the student to the weak protocols and how they are exploited; how to design to protect the important parts of the network and lastly, how to identify the “bad guy” when they do breach the Network. This certificate builds a strong foundation for students in defense & forensics, Law & Policy, or another degree program, like Applied Computing, ECE, Computer Science, etc.

Discussion: UA is top 3 according to the National Security Agency National Centers of Academic Excellence in Cyber Operations, and one of only 21 schools that holds this accreditation.

* 1. Certificate in Information Warfare, College of Applied Science and Technology-Jason Denno

Cyber war and Information war do not stop once a ground war (Kinetic war) does. The use of information is being used to divide, deceive, confuse populations, countries, communities. This is now leading “us” to a kinetic war rather than the kinetic war leading to the information war. This certificate is in line with the Intelligence & Information Operation degree. It also overlays the technical side of information for non-technical degrees, for example, journalism majors, or marketing majors. In advertising, this information warfare in the commercial space is called aggressive marketing.

Discussion: Revolved around what population are attracted to these certificates. Spans all ages and education levels. UA is the expert in the industry.

* 1. Certificate in Security Computing, College of Applied Science and Technology

Expects this certificate to be the most popular certificate ever produced. Using Python to solve security issues with big data. Students do not learn the Python language but learn to use the scripts for Python to solve the problems and reverse engineer the methodology, decompose and analyze the problem, then find a solution using the scripts from Python. Students learn to build the tools and extensions that will fix the problem with the commercial tool, they can apply existing AI or machine learning libraries to the problem.

Discussion:

Q: Do students need programming experience to be successful?

A: No, the entry course, 312 in the first three weeks teaches the students to use the Python scripts they need to know to solve very simple security problems, teaches the structure of how to script. Then it builds over the additional courses. Most students do not have programming experience, this method has been tested and is successful.

Q: Will a student that finishes one of the certificates pursue additional ones?

A: Yes, students are coming back looking for more certificates to earn. Especially students that do not have a strong technical degree are using these certificates to fill in the gaps to boost their careers. They want to be functional when they “walk out”.

Q: Is there a sequence to earning these certificates if students want to earn all of them?

A: Dependent on their background and if they are a degree seeking student. But Security Computing is probably the best place to start and gain the knowledge and skills to be successful faster.

Q: When a student applies, does the College know the applicant’s background to advise the best starting point?

A: Jason does talk with students, 20-30 a week. Works with advisors to ensure they are just as knowledgeable of each certificate and course; they can advise the best strategy to be successful. They are ready before they are active in the system. If they cannot answer any longer, the student is escalated to Jason for support.

**All 3 CAST Certificates voted on at once; motioned to approve by Kelly, seconded by Melissa, approved with 7 yes votes.**

* 1. Certificate in One Health, College of Public Health

Aligns well with UA initiatives also with the other One Health degrees, allowing advancement for students beyond this certificate. Ensures students are well equipped to handle future illnesses, diseases, viruses, pandemics, etc. This certificate ensures the availability of the needed work force to quickly address these challenges. We need the next generation environmental scientists to help professionals at all levels to be trained in this One Health approach, this highly integrated and systematic approach to disease prevention. All courses are offered online, allowing for broader participation.

Discussion:

Q: Are the online courses asynchronous or synchronous.

A: some are asynchronous and some are synchronous.

Q: Is the new course different then the degree seeking course

A: yes, it was an in person course, but has been developed fully online.

There will be a One Health Minor coming to the Subcommittee next month. The difference between the certificate and the minor is that the certificate focuses on the providing background in the emerging area of one health in action and addressing professional development needs. And it is expected to be a feeder into other Public Health degrees. The minor is more foundational.

**Approved with 7 yes votes.**

1. Meeting Adjourned at 4:10pm

*Respectfully prepared by Cindy Williams*