Computer Office Studies Industry Advisory

March 27, 2023

5:30pm – 7:00pm

Virtual Meeting Minutes

*Present: Aeontg – John Matlock, Atomic Group – Roberto Wong, Cyber Pathways – Freddy Cook, Corvus – Malia Mason, Google – Julian Ong, Port of Long Beach – Drew Schneider, Nyariana Maiko, LBCC – Garret Whelan, Miriam Lynch, Dena Laney, John Sicklick, John Craig, Lorraine Blouin, Matthew Goodwin, Charace Thompson, Veronica Rodriguez*

**Welcome & Introductions:**

The meeting was called to order at 5:04 pm by Garrett Whelan. Garrett Whelan welcomed everyone and asked everyone to introduce themselves.

**Program Overview and Accomplishments:**

Garrett Whelan provided an overview of the Computer Security & Networking program. There are three degrees within this program:

1. Computer Security & Networking
   1. The main certificate has been around since 2012
   2. Leads to general IT/Networking/Cybersecurity entry-level jobs
2. Information Technology Cybersecurity
   1. Newly added 2022 – transferable to Cal State University, San Bernardino; however, CSUs have not created a degree yet
   2. Similar to Computer Security & Networking
3. Cloud Computing
   1. Leads to Cloud Engineering/Administrator entry-level jobs

Each is a Certificate of Achievement. Students who complete general education courses can earn an Associate of Science Degree.

Enrollment in Computer Security & Networking program has decreased slightly post-COVID.

The Cybersecurity Club is active and participates in the National Cyber League; it placed 39th out of over 450 colleges during the Fall of 2022.

Women in IT Club are participating in the Wicked6 Cyber tournament.

LBCC is an NSA Center of Excellence Y2K. We are renewing designation for another seven years. Rules for designation have changed. Only one program can receive the designation at a time. Selected Computer Security & Networking CoA because students who earn the Computer Security & Networking certificate or degree automatically get a certificate that says they graduated from the NSA Center of Excellence, qualifying them for certain Department of Defense and/or government positions.

F. Cook asked if the Computer Security & Networking CoA included CompTIA or ISA2 certification. G. Whelan stated that the CSS 271 Security Fundamentals course maps to the Security Plus course.

R. Wong asked about the hands-on experience for this course. He stated that he has interviewed candidates who are pursuing cyber degrees but no lab experience and have difficulty identifying networking equipment. G. Whelan stated that their program is all hands-on. In the COSN 299 Security and Networking capstone course, students build an entire network from top to bottom.

**Changes to Cybersecurity and Information Technology:**

G. Whelan requested to add the COSN 299 Security and Networking capstone course to the Information Technology Cybersecurity degree as a required course. This course is vital to student learning and assessing program learning outcomes.

*Vote*: M. Mason motioned to approve adding COSN 299 Security and Networking capstone class as a required course to the Information Technology Cybersecurity program. This was seconded by R. Wong. The vote passed unanimously.

**Changes to Computer Security and Networking:**

G. Whelan discussed changes to the Computer Security & Networking degree and stated that Professor J. Sicklick would like to rename COSS 272 from *Computer Forensics & Investigations* to Digital Forensics & Incident Response.

J. Sicklick stated that the current name, "*Computer Forensics & Investigations,"* tends to imply it is for folks who want to go into a career in law enforcement. The new name, "Digital Forensics & Incident Response," aligns better with the intent of the course.

J. Sicklick asked M. Mason for feedback. M. Mason agrees with the name change, as it is better aligned with the industry.

D. Schneider asked, "Do you plan to expand beyond computers to other devices?" J. Sicklick said yes, they have already begun introducing other devices.

*Vote*: M. Mason motioned to approve renaming COSS 272 *Computer Forensics & Investigations* to Digital Forensics & Incident Response. R. Wong seconded this. The vote passed unanimously.

G. Whelan requested the removal of Microsoft Technical Associate (MTA) certification. Most courses referenced the MTA certification; however, students are no longer taking them because exams are no longer applicable.

*Vote*: D. Schneider motioned to approve removing Microsoft Technical Associate (MTA) references, updating course description, and adding C-ID reference to Computer Security & Networking courses. This was seconded by F. Cook. The vote passed unanimously.

**Bachelor of Science in Aerospace Cybersecurity:**

G. Whelan proposed to create a new BS degree in Aerospace Cybersecurity. He stated that other community colleges have Bachelor's degrees. This degree will help more students earn a BS degree at the community college. Program will be designed for community college students (evening courses, etc.). N. Maiko asked to explain the reason for "aerospace" in the degree title. G. Whelan stated that degrees have to be specialized to the local area's needs, and aerospace is big in Long Beach. The BS degree will have a specific focus on aerospace.

N. Maiko asked if the department would add an entertainment-focused degree since LA County has many entrainment companies. G. Whelan stated that their department will not.

M. Mason stated that this degree should not be limited to the Long Beach area (or aerospace) because plenty of companies are fully remote and looking for entry-level workers.

A conversation about the title of the BS degree took place. G. Whelan stated that the degree name could be changed later and a survey would be sent out to collect more input from the industry. Students are getting hired with just an AS degree; however, this BS degree will be affordable for students and allow them to continue their education. Industry prefers experience over a degree. Candidates who have a degree will not necessarily earn more than a candidate without a degree. This is going to come down to experience.

*Vote*: N. Maiko motioned to approve the creation of a new Bachelor of Science degree in Cybersecurity Aerospace. M. Mason seconded this. The vote passed unanimously.

There was a discussion about moving the existing CISCO program to Computer Office Studies (COS) department. Currently, the program is housed in the Electrical Department. If the program is moved (move must be approved by both COS and the Electrical Advisory Board members first). The COS Department could change the program to complement existing certificates and degrees. N. Maiko stated that the Port of Long Beach is looking for IT interns, and BS program students would qualify for those opportunities.

*Vote*: R. Wong motioned to approve moving the existing CISCO program from the Electrical Department to the COS Department. This was seconded by D. Schneider. Vote passed unanimously.

**Establish a new program for Unmanned Aerial Vehicle (Drone) Operations:**

There was a discussion around creating a new program for unmanned aerial vehicle (drone) operations. J. Sicklick stated that Cypress College and Fullerton College already offer this type of program and asked Advisory members if this is something LBCC should continue to explore. F. Cook stated that exploring this further is a great idea. Other members agreed. R. Wong suggested adding a business component to theprogram.

*Vote*: N. Maiko motioned to approve further investigation of an Unmanned Aerial Vehicle (Drone) Operations program. R. Wong seconded this. The vote passed unanimously.

**Database Management Program:**

J. Craig proposed to change the name of the existing *Database Management* program to "Data Science" or "Data Analytics" because the program content changes focus to Tool User in data collection and analysis.

J. Ong asked for clarification on the name change. Will the vote be to change to "Data Science" or "Data Analytics" because the courses presented are more analytic than science? J. Craig stated that the only "science" course would be the statistics course offered by the math department.

*Vote*: F. Cook motioned to approve renaming the existing *Database Management* program to "Data Analytics." R. Wong seconded this. The vote passed unanimously.

**New Course Creation:**

J. Craig proposed change and creation of the following COSA courses:

* Change the existing 1-unit course *Intro to Data Analytics/Modeling* to "Data Analytics with Power BI" and increase the course to 3-units
* Create a new 3-unit course called "Data Analytics with Tableau."
* Create a new 3-unit course called "Google Analytics."

All courses are based on free, open-source materials augmented with in-class labs and assignments.

*Vote*: J. Ong motioned to approve changing the 1-unit course *Intro to Data Analytics/Modeling* to "Data Analytics with Power BI" and increasing the course to 3 units. D. Schneider seconded this. The vote passed unanimously.

*Vote*: J. Ong motioned to approve creating a new three-unit course called "Data Analytics with Tableau," N. Maiko seconded this. The vote passed unanimously.

*Vote:* J. Ong motioned to approve the creation of a new 3-unit course called "Google Analytics." R. Wong seconded this. The vote passed unanimously.

**Revise Associate of Science Degree and Certificate of Achievement program:**

J. Craig proposed creating an Associate of Science Degree and Certificate of Achievement program to include the following core classes:

1. Microsoft Access Database
2. Database Concepts
3. Intro to SQL Programming
4. Data Analytics with Power BI
5. Data Analytics with Tableau
6. Google Analytics
7. Introduction to Statistics for Data Science (Math-Science)

This program will be designed around entry-level students. The intro to statistics course will be offered in the math department; it will be either Python or R.

R. Wong said he would hire students coming out of this program and asked if contextualized learning could be included.

J. Ong suggested including VTL Pipeline, but this might be too much to cover for an AS program.

M. Mason asked if data privacy and data collection would be covered in these courses. J. Craig stated that these entry-level courses would teach students the fundamentals for capturing data, including ethical considerations for collecting and presenting data. Students should understand new and old database systems and concepts. Advisory members had a conversation around privacy concerns and compliance.

M. Mason asked if generative AI capabilities would be included in this program. J. Craig say they would not be included. This program is going to be a COSA applications-based program. M. Mason stated that Microsoft is adding co-pilot to their AI tool that will be added to Power BI, and companies will be looking for people who understand this. J. Craig stated that this course is for entry level students but will consider a second-semester advanced Power BI or Tableau course.

*Vote:* N. Maiko motioned to approve the creation of an Associate of Science Degree and Certificate of Achievement program to include the following courses: (1) Microsoft Access Database, (2) Database Concepts, (3) Intro to SQL Programming, (4) Data Analytics with Power BI, (5) Data Analytics with Tableau, (6) Google Analytics, and (7) Introduction to Statistics for Data Science, this was second by J. Ong. The vote passed unanimously.

**Announcements:**

No announcements

Minutes recorded and submitted by Veronica Rodriguez, pending approval.

Meeting adjourned at 7:35pm