

Cybersecurity Advisory Board Meeting

Thursday, March 10, 2022

Attended: Mike Kelly, Kevin Crawford, Frank Tweedie, Mike Steinmetz, Mollie Magee, Patrick Colantano, Mason Folcarelli

Absent: Jodi Anthony

The meeting began at 11:05 am. Mike Kelly, the Cybersecurity Director, thanked everyone for participating on the Cybersecurity Advisory board. He said maybe we can meet twice a year, once in person in the spring and once virtually in the fall. He said we intended to have this 2 years ago, but COVID came, so he will get us up to date today. He wanted everyone to know where we are today, as most of the board has participated in some way over the years. He will go through our current degree programs, show everyone on the handout where cyber courses have been added in other programs, go over the cyber range, which is a very critical piece to the college, and what the plans are for the range.

He said please let us know what we are doing well and what improvements we may need to focus on in the future.

Introductions:

Kevin Crawford, Chair of the Computer Studies department at CCRI, said he has been with the college since 1987. He started out as a student worked his way up to a professor and now the chairperson. He has been overseeing the Computer Studies department for the past two years. He has been making a lot of changes, especially with having more cyber courses in other programs. He wants to create new advisory boards to focus on specific needs instead of having one board for all programs, they will include cyber, programming, web technologies, networking, and computer support.

Molly Magee, Executive director of SENEDIA, the New England Defense Industry Alliance previously known as the Southeastern New England Defense Industry Alliance. They are serving all of New England now so they are getting away from just servicing southern New England. She made a point of stating that our cyber program is one of the best in the country and that she says that all of the time. She said that SENEDIA takes many interns from CCRI and they are always high quality. Their most recent intern, Brandon Fournier, came in and brought them from a very low 800 level to a satisfactory level.

Mike Steinmetz, former RI top security officer and homeland security advisor for the former governor. He said he would like to echo what Molly said, he has been around the globe and it is confusing to him that others are trying to be emulated by what we are doing which is evidenced by Camino Cavanaugh from the UK, who is trying to do what we do CCRI and they are not even close and are having issues selling their programs. His focus today is to ensure that those meaningful ties are recognized, appreciated and help move those programs forward and are positive for the school and those students.

He said not everyone has a cyber range like us connected to a two-year program. When he was in the UK he ran into a lady from Kings College, London named Camino Cavanaugh and told her they do this in

Rhode Island. She said she did not have a cyber range and could he put her in touch with CCRI. There was some talk about our students doing some exercises with the students from the UK. She was willing to pay to have her students have some time on the cyber range here in RI. She did not know of anyone who had a range that did not have a lot of money. He believes there are many benefits that others across the nation and even the UK can get from what we have already been doing. Mike Kelly said he had even looked into setting up a conference venue and having the range folks run it for the UK students but then COVID came and it did not happen. Mike Steinmetz said our program is world-class!

Mason Folcarelli, Director of Workforce Partnerships said he works on the workforce side and was brought into this by working with Mike and Kevin, but they are the technical experts and he works on funding and partnerships.

Frank Tweedie, Dean of the College of Engineering and Design at Johnson & Wales University and has been with the university for 28 years. He has been working with Kevin and Mike for many years and recently signed an articulation agreement for the 2-year students to go into their 4-year Cyber Threats and Defense program. They have hired Douglas Tondreau from URI. They have a small range at JWU with just small simulations but this new partnership will give their students and CCRI students more opportunities.

Kevin said when we were talking about the articulation agreement with cybersecurity club students they talked about having both JWU and their club join together and meet and have competitions. This may help our students want to go there. Frank said he would like to have them as part of their lab team as they are nationally recognized.

Patrick Colantonio, Director of Sales at NeQter Labs. He went through CCRI's Engineering and Computer programming and had an internship with SENEDIA. He remembers giving a presentation to Mike Steinmetz as an intern. He said after graduating they started a company that is now servicing 250 companies across the US with their software. The internship helped him with starting a company and he said many employees at NeQter Labs also went through the internship program with SENEDIA.

Mike said that Patrick went through our CISCO program also. When Mike was the chair he and the former VP Greg LaMontagne began discussing the program with Molly and the initial notes were written on a napkin. He decided to stop being the chair and became the cybersecurity coordinator to focus on the program and the utilization of the cyber range. He also works for the workforce side to try and keep current with the industry as well. He said some of the training can be done on the workforce side and not just academics and he is trying to find a balance. There may be some that have certifications already and can be awarded credit and may want to jump into the cyber program without having to retake those classes.

Mike talked about the 5-year accreditation coming up and that he may need to reach out for past correspondences throughout the years for evidence to the NSA. He said they just finished the annual review and their system has changed therefore the 5-year accreditation review will have to be started from scratch. He talked about the cyber club now up and running again after COVID and the first on-site meeting is in March. He talked about using the NICE web portal for spinning off machines, practice exercises, or competition-ready exercises. They have a competition team, which is right now at 4 members. He said he has been sending them stuff every week to practice and they are going to show that tool at the next meeting. He said they are in the NSA-NCX cyber competition that is coming up in April. He said in a meeting yesterday they said it was down to 21 teams and it was originally 50. He said

they are doing a 4-prong competition where they will do policy, malware, cryptography, and then a combat exercise. He said there are two community colleges left and he is happy to see that our students are willing to step into these competitions. He said we have two students participating in the UCONN CyberSEED Competition in 2 weeks. He said he invited P-Tech today, but they are not here. He wants to get their students involved as well.

Mike said on April 26, at the Warwick Campus at 7 pm we are having a cyber event to present our internal certificate for students who completed the Cyber Defense Path. Dean Nauman will hand out the certificates. The board has approved the certificate and students can take just that certificate which gives students with financial aid the opportunity to just take that certificate instead of the degree or work on the degree while working. Some students already have degrees in other areas and are just interested in those courses and will now get the certificate. Kevin said it will begin in the fall and that is why it is not posted yet on our website, but will be on there when the catalog comes out in May.

Mike said we are also inviting former students who have earned the certificate. He is working on a speaker. He is going to have partners such as Workforce, Johnson and Wales, SENEDIA, Career Services, and the student Cyber club. This will give students opportunities to interact with and help them with getting information on resume writing, internships, JWU articulation, cyber student club, etc. He said that Congressman Langevin will be giving out citations as well. He may want to have him give a virtual greeting.

Mike began to talk about the CISCO program being transferred to Computer Studies because of overlapping with Engineering. He said they began to rebuild some of ours to be on or off-ramps to the cyber program directly or indirectly. He said some may have the A+ or the N+ and don't need to start from the beginning or realize they don't want cyber at all, but at least they have other programs to choose from that incorporate some or all of what they have already. He said this gives students options if they do not like cybersecurity. Kevin said we have Pathways on our website that can help students.

Mike said the only change that has been made in the Cyber degree is the Operating Systems course was taken out and the Linux course added in place. Mike talked about the internships and how he has them report weekly on what they are doing and share with and they also complete the most important piece and that's their portfolio. He asks them for evaluations on their sites, how the internship worked, and how did the degree program connect to what they are doing. He said they did see gaps and one of them was Linux and therefore they added that course to the degree. The cyber range course was also originally a single course and separated into two, external and internal threats. He said the external threats course is required in the program, but the internal course is not required.

Mike said any help with internships is always appreciated. Mike said we had two students that did an internship with the department of administration, and they really liked them.

He said the Cyber Defense Path certificate maps to the NSA's KU's. He showed a presentation of how our programs have courses (highlighted in red) that are part of the cyber degree.

Computer Support Specialist degree has the Programming Concepts (in most degrees), Linux, Computer Ethics and Intro Cybersecurity courses. If they find this is not what they like they can use these four courses towards the cyber degree.

Networking Technology degree has five courses that map to the cybersecurity degree. It has an emphasis on Software or Hardware. They have designed these two degrees so that students may decide

to do both and be even more marketable in the field. Mike said he wants to use the cyber night as a way of getting this information out to students.

Mike explained some of the past boot camps for specific certificates and how students would then realize they didn't like a specific skill, i.e. A+, S+, N+, and how we came to developing the certificates we have now. We are trying to articulate with P-Tech students for us and then us to be ready to articulate to JWU. This is a great entry path for P-Tech students, people already in the field that want to improve skills, or working on specific skills. Mike said they had a meeting with the Providence Chamber and workforce along with CCRI and the feedback was they asked us why we did not have more Windows training. He explained why we are teaching more Linux because of Cyber Defense but pointed them to where we have more Windows training. Kevin explained the Network Security Software course is for people that have taken the Windows Server course and helps with how you put security on the Windows Server.

The Computer Support Technician offers the Computer Ethics course and the Network Software certificate offers the Linux Computer Ethics and Database Mgt. courses. These are not just locking in CISCO courses but ways to incorporate other skills.

A lot of students sometimes don't understand the importance of database skills. Patrick said it is important. Mike explained that when he talks to the workforce partners he specifically asks them what part of cyber they want. We need to support by hiring new faculty and people already in the field; however, they must like teaching because they will have a pay cut. Kevin said the adjuncts are working in the field and they bring skills needed in the workforce and that happen on their jobs.

Mike Steinmetz asked if there was anyone asking about cloud security and the software X in the industry. Mike Kelly said there has been some talk with Amazon about AWS and we need to be broader. He said he has shown what is needed, but it can be difficult to focus on just one cloud and to do so much with a two-year degree. Mike Steinmetz said that what we are doing is a great foundation, but to even begin to understand the cloud and the relevance of moving to the cloud, public or private. He sees a freight train coming with Software X. He said that is why having partnerships in the right places you can carry these to JWU. Mike said we can even offer it through Workforce also and that partnership is important too. Mike K said URI or RIC do not meet the connection needed and that's why the agreement with JWU helps with further training. Kevin said in the fall we are starting a computer networking and cloud degree but can only do so much as a 2-year degree.

Mike Steinmetz said our foundations are good and we should collaborate with our partners to do a cyber-literacy event for free for students, JWU students, and even business leaders to understand cybersecurity. Frank said that is one of the purposes of CAE partnerships is to help with those gaps.

Mike Steinmetz said we need to partner with 4-year institutions for the research. Mike asked if the agreement before JWU and CCRI was a done deal. Frank and Mike Kelly said yes. JWU wants our degree students and not just transfer students. Mike said what JWU has done is offer incentives for our students who complete by offering money towards JWU's Cyber program by their GPA at CCRI. It also helps us and JWU have a bigger partnership with their constituencies and ours. Kevin said it helped students in the past with Networking and it helps P-Tech students tremendously. Kevin said we have a student graduating high school and CCRI this summer and was trying to figure out where to go and he was able to direct them to JWU.

Mike Kelly talked about the range and that we just had to have an upgrade done. We are now on release 3.4. An LMS is now in place. We are also working on someone that can run the LMS. He now has someone that is working with him to improve offering time on the range. It has allowed us to revisit the range and how we can let others in to use it. He said at the beginning he could not say how we were going to use the range more but now that we have the workforce partnership we can begin to think about more tangible ways to use the range that are not just academic. By Light is going to do an on-demand training in April. He said there is a lot of training for the on-demand range pieces and they now have them web-based. Frank said he has an idea, that maybe Anthony Chavez is the one who can help share ideas on what he did to build JWU's small range and he has a military background. We could get him trained as a backup person. Mike said the range is military-grade so that would be excellent. Mike said he would like to have him participate in the training so maybe JWU's students can use it as well. The range has so many avenues that the cyber range can do and they are going to start offering more in Newport. He said they are trying to keep the Newport Campus alive. Kevin said this coming fall we are going to add more classes.

Frank said we can help with what preparation can be done. Mike said with the NSA/CAE process we need a lot of feedback from everyone. Students, partnerships, etc. to bring relative info we can use towards our program.

Mike said he went to the joint cyber meeting last week. A Lot of the original members are gone so reconnecting with the new members needed to be done.

Molly said that the Windows environment is extremely important. She said cyber is important but literacy may be the most important thing needed. Magee asked if there is any move to create a course for cyber literacy which may be more important than a gen ed. course.

Frank said that JWU is waiting on funding for providing a cyber awareness boot camp with high school teachers, and tied to additional training with state and local police with awareness.

Mike Kelly said doing this at a workforce level may be a good way to begin. He said we have to do it departmentally first. Kevin said there is a new Gen Ed. committee that is not looking at our specific programs. Frank said awareness could even start at the high school level. Mike Kelly talked about a WPI student with a dual degree in Computer Science and Robotics and the NSA is paying for him to do a minor because he had a general awareness of cyber.

Kevin said we talked about developing an Intro to Computer Science course at our last department meeting that includes cyber awareness.

Mike Kelly said Excel, SQL, and cybersecurity are now the core pieces and probably cloud too, but some don't even know what they mean. Mike said they had a two-course certificate through the workforce to run it through and then build on that for courses that needed to be provided by the department for Data Analytics.

Meeting ended at 12:25 pm.