

CNSE Industry Advisory Board Meeting Minutes

March 26, 2025

Quick recap

The team discussed the Advisory Board Meeting, the Stem Impacto program, and the cybersecurity program at Moorpark College, including its curriculum updates, the importance of technical writing, and the need for facilities and labs. They also explored the creation of labs for interns, the plans for the cybersecurity program, and the importance of logging in cybersecurity. The team supported that a dedicated academic lab in room T 211 was needed independent from campus infrastructure for student learning. The conversation ended with a discussion on the need for soft skills in cybersecurity policy discussions and the value of basic Excel skills and log management for troubleshooting.

Next steps

- Kevin and Ed to send out a questionnaire and curriculum information to attendees for additional feedback.
- Kevin and Ed continue develop the T 211 lab with isolated network and dedicated internet connection based on industry feedback.
- Kevin and Ed to explore incorporating more technical writing components into the curriculum.
- Kevin and Ed to develop and implement a process for student certification voucher reimbursement (A+, Network+, Security+).
- Ed to finalize the pre-screening exam for certification readiness.
- Kevin and Ed to consider incorporating more log management and analysis content across courses.
- Kevin and Ed to explore adding more soft skills training, particularly in technical communication.
- Kevin and Ed to begin preparation for applying for the National Center of Academic Excellence designation for the bachelor's degree program once approved.
- Kevin and Ed to plan for the AI in cybersecurity add-on designation after obtaining the bachelor's degree program designation.

Meeting Notes:

Stem Impacto Program Overview

In the meeting, Nathan, Ruth, Kevin, Daniel, Jessica, and Dan discussed the Advisory Board Meeting. Ruth expressed her unfamiliarity with the meeting's content, while Kevin explained

the Stem Impacto program, a grant for low-income and Hispanic students in STEM careers, including cyber security. The program provides financial incentives for students to meet with faculty advisors, peer mentors, and counselors, and attend life skills workshops. Kevin also mentioned that the program has been successful, with students performing better than others at Moorpark College.

Faculty Introductions and Industry Experiences

In the meeting, Edmond, Kevin, Nathan, Ruth, Michael, and Daniel introduced themselves as faculty members at Moorpark College, with a focus on computer networking systems engineering and cybersecurity programs. They shared their experiences, backgrounds, and contributions to the college. Kevin was congratulated for achieving tenure, and Nathan was praised for his work on the Wireshark course. The team also discussed their industry experiences and their roles in teaching and curriculum development.

Cybersecurity Talent Development and Industry Partnerships

The meeting involves introductions from various participants, including representatives from Moorpark College, Secure The Village, and industry partners. Stan Stahl discusses the importance of developing cybersecurity talent and bridging the gap between academic knowledge and real-world experience. Edmond shares positive feedback from Western NRG about the preparedness of Moorpark College students for the workforce. Robert Cabral, Dean of Student Learning at Moorpark College, highlights a 15% increase in career education student enrollment, attributing it to successful programs like CNSE. The participants emphasize the strong connection between the college's programs and industry needs.

AI Integration in Cybersecurity Curriculum

Kevin and Edmond discussed the cybersecurity program's curriculum updates, focusing on incorporating AI into existing courses. They propose adding AI modules to each CNSE course and a full AI course in the bachelor's degree program. Edmond suggests faculty should plan how to integrate AI into their courses over the summer and include AI usage guidelines in their syllabi. The program is also expanding to include MongoDB, Cisco Cyber Ops, and potentially Splunk courses. Kevin mentions that Moorpark College's cybersecurity bachelor's degree is under review and that they are considering applying for a National Center of Academic Excellence designation in AI for cybersecurity.

MongoDB and Splunk in Corporate America

Edmond explained the roles of MongoDB and Splunk in database management and log analysis. He highlighted the need for these tools in corporate America, particularly in tracking remote work activities and protecting databases. Edmond also mentioned the challenges of finding a database instructor and the plan to offer an AWS course that includes MongoDB.

Incorporating Technical Writing Into Curriculum

Kevin and Edmond discussed the need to incorporate technical writing into their curriculum, as it was a common feedback from other organizations. Daniel, who attended the conversation, agreed and emphasized the importance of understanding AI models and their limitations. Kevin mentioned that they were already working on this by having students document their processes and use AI tools to formulate responses. The team also discussed the need for facilities and labs, with Edmond sharing that they have been sponsoring an open access lab.

Open Access Lab Initiative Discussion

Edmond and Kevin discussed the open access lab initiative at their institution. The lab is open to all students, including those in online classes, and is available two days a week from 10 AM to 6 PM. The lab is designed to foster community building and provide students with a space to work on projects, equipment, certification prep, and labs. The initiative is particularly important as the institution anticipates enrolling veterans and international students who require on-campus instruction. The lab is also being used to train student interns in setting up labs and creating technical documentation. Kevin expressed some challenges in collaborating with campus IT. The team is considering what additional equipment should be included in the labs.

Understanding Virtual Infrastructure Concepts

Kevin and Daniel discussed the importance of understanding storage, networking, and firewall concepts for virtual infrastructure. They emphasized the need for familiarity with various firewall systems, including Cisco, Fortinet, and Palo Alto, and the use of UTM functionality for tasks like SSL inspection. They also highlighted the significance of VPN

technology and the need for a separate, isolated network for security and realism. Kevin expressed his intention to create a lab that mimics a medium-sized business, with a separate network for security and realism.

Intern Labs and Cybersecurity Training

Nathan discussed the creation of labs for interns to learn common firewall tasks, such as port forwarding and VPN setup. Kevin shared his plans to have student interns build these labs and emphasized the need for a dedicated internet connection. Industry feedback supported the need for an academic lab independent from Moorpark campus infrastructure. Edmond suggested exploring the possibility of dedicated rooms and purchasing licenses for future use. Kevin also mentioned the potential for a red team and blue team setup for cybersecurity training. Edmond highlighted the success of the college's cybersecurity club, which is nationally ranked and has been training students for three years.

Moorpark College Cybersecurity Program Plans

Kevin and Edmond discuss plans for the cybersecurity program at Moorpark College. They aim to apply for a National Center of Academic Excellence designation for their bachelor's degree program, which is a multi-year process, and later add an AI for cybersecurity designation. They also announce a \$50,000 grant that will be used to reimburse students who pass certification exams like A+, Network+, or Security+. Edmond is developing a pre-screening exam to ensure students are prepared for these certifications.

Cybersecurity Logging and Soft Skills Importance

In the meeting, Nathan suggested the importance of logging in cybersecurity, emphasizing the need for understanding syslogs, snmp, and netflow. He also highlighted the value of basic Excel skills and log management for troubleshooting. Edmond agreed, mentioning that these topics are covered in the Cnse M. 57 course but could be emphasized more. Daniel added that soft skills like communication and technical writing are crucial in cybersecurity policy discussions. Michael agreed, noting that the Cysa course covers some of these topics but could be improved. The team agreed on the importance of these topics and the need for further training.