

CIS Computer Information Systems

CST Computer Service Technology

CYBR Cybersecurity

Advisory Board Meeting Minutes 04/16/21

Department Chair

Professor Tobi West, CISSP, GCFE

The purpose of the meeting is to gain feedback from industry, government, and academic professionals working in the areas of computer information systems, computer service technology, and cybersecurity with emphasis on computer networking, data analytics, cybersecurity, and other related professions.

Meeting Attendees	
Tobi West	Professor, Computer Information Systems, Coastline College
Dr. Brandon Brown	Professor, Computer Service Technology, Coastline College
Dr. Shelly Blair	Dean CE, Coastline College
Merry Kim	Associate Dean CE, Coastline College
Dr. Aeron Zentner	Dean of Research, Planning, Effectiveness, & Grants, Coastline College
Anna Isbell	Instructional Associate, Coastline College
Abigail Deras	IT Security Engineer, Qualcomm
Allen Stubblefield	Computer Science Educator, Troy High School
Andy Cuberly	CTO, COO, Veterans Communication Services, Inc
Anna Carlin	Professor, Computer Information Systems, Fullerton College
Brian Hagerty	Executive Director, P3 Innovation Center for "People, Planet and Prosperity"
Christine Kirkpatrick	Division Director, Research Data Services, San Diego Supercomputer Center, UCSD
Dwight Osborne	Computer Science Teacher, Valencia High School
Gora Datta	CIO HL7 Ambassador, Health Level 7 International, IEEE, ISO
Hannah Bai	Sr. Network Systems Administrator, Department of Health Services, Los Angeles County
Holly Heron	CTE Counselor, Garden Grove Unified School District
Malia Mason	Vulnerability Manager, Hulu; CEO & Co-Founder, CyberDEI
Manoj Chitre	Associate Vice President, Info Tech (like CIO + Finance)
Myra Clarke	Director Career Technical Education, Garden Grove Unified School District
Asynchronous Attendees	
Eden Dahlstrom	Vice President, Professional Learning, Educause
Eric Crutchlow	Sr. Sales Engineer, Tenable
Dr. Ron Pike	Professor Computer Information Systems, Cal Poly Pomona University
Terry Ginsburg	Cybercrime, Digital Forensics, CA State Investigations

Program Overview

- Student demographics
- Coastline organizational model
- LMI/Program enrollment and completions
- Curriculum transition plans
- Developing articulation agreements with Cal Poly Pomona

CURRICULUM / REVIEW OF PROGRAMS

Current Offerings

Associate of Science – Data Analytics

Associate of Science – Computer Networking: Cisco

Associate of Science – Computer Networking: Microsoft Windows Server

Associate of Science – Cybersecurity

Associate of Science – Digital Forensics & Incident Response

Proposed

PROGRAMS TO RETIRE

Associate of Science – Computer Networking: Cisco

Associate of Science – Computer Networking: Microsoft Server

NEW PROGRAMS (see attached slides for list of classes)

Associate of Science & Cert of Achievement – Cloud Computing

Associate of Science & Cert of Achievement – Information Technology (IT)

Certificate of Accomplishment – Red Hat Linux

Certificate of Achievement – Cloud Computing

REVISIONS (see attached slides for list of classes)

Associate of Science & Cert of Achievement – Digital Forensics and Incident Response

Associate of Science & Cert of Achievement – Cybersecurity

Associate of Science & Cert of Achievement – Data Analytics

Cert of Achievement – CCNA

Cert of Achievement – IT Foundation

Cert of Achievement – Penetration Testing/Offensive Security

Cert of Accomplishment – Cybersecurity Analyst

PROJECT & INNOVATION UPDATES

- STORM Cyber Innovation Lab
- CompTIA voucher project (pilot + successes)
- Diversity Building Workshops (future plans)
- GenCyber Summer Camps (Girls Digital Forensics + Teachers)
- Revise NetLab lab instructions (custom pods)
- Develop pathways (dual/concurrent enrollment programs)
- Program development (keep up to date on curriculum changes)
- WRCCDC

FEEDBACK/RECOMMENDATIONS

Meeting industry needs and demands for skilled professionals

Emerging trends

Additional recommendations

BOARD MEMBER COMMENTS

Abigail Deras	<ul style="list-style-type: none">▪ The proposed changes to the degrees and certificates look good.▪ Consider adding modules or learning content for remote collection (forensics), GRC, cloud forensics, insider threats, forcepoint, and other opportunities for students to learn about monitoring.▪ Automation and AI are the next big thing in forensics.
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	<ul style="list-style-type: none"> ▪ Phishing and malware are the leading types of corporate investigations. Check out more challenges and forecasts on The State of Corporate Digital Forensics report from Magnet Forensics (Abby sent a copy of the report to Tobi by email). ▪ Students need to be prepared for a variety of forensics challenges at work. Corporate forensics include much more than dead box forensics now. Data sources include Macs, mobile devices, cloud services, and IoT. ▪ Examiners are usually getting evidence from mobile devices and tablets, dead box images, and remote computers, especially because of so many employees working from home now since COVID-19. ▪ Corporate environment investigations include incident response, personnel disputes, harassment complaints, potential asset misuse, data exfiltration, and IP theft. ▪ Techqueria has meet-ups every other week that students can attend.
Aeron Zentner	<ul style="list-style-type: none"> ▪ These program pathways are helpful to prepare students for careers in high-demand areas. ▪ Students should learn more about data visualization and data analytics. ▪ Blockchain and cryptocurrency are hot right now. Students are asking if we will be offering courses in these areas.
Allen Stubblefield	<ul style="list-style-type: none"> ▪ Is seeing that more students are 2-year college bound lately. Has students that go to Purdue, CMU, Cal Poly Pomona, and UCSD. ▪ The usual problem is that they can't find the program they need for cybersecurity and they don't want to go into Computer Science. ▪ More cybersecurity is moving down into the middle school level. ▪ They are offering CompTIA exam vouchers for IT Fundamentals+.
Andy Cuberly	<ul style="list-style-type: none"> ▪ The program is going in a great direction, in alignment with industry needs. ▪ Cybersecurity Capability Maturity Model is an emerging topic for community colleges and universities to help prepare students to understand it and recognize the model in relation to the workplace.
Anna Carlin	<ul style="list-style-type: none"> ▪ In agreement with the proposed changes, especially considering the recent decline in enrollment for Cisco.
Brian Hagerty	<ul style="list-style-type: none"> ▪ Great choices on the changes to the degrees and certificates. ▪ Can help with lab services to build out labs that help students with standards. ▪ Cyber-physical systems are a specialized area to look at for the future growth of the program. ▪ Market Share needs to be the driver in making choices for training & education.
Christine Kirkpatrick	<ul style="list-style-type: none"> ▪ The current and proposed programs are right in the sweet spot. The Linux certificate is especially important to industry. Good choice selecting AWS for cloud computing. ▪ She sends people to Coastline often because she thinks the programs are so great. ▪ Shared info about our program at an NSF meeting for Cybersecurity & Data Science professionals. ▪ Consider adding learning modules/materials about containers, Ansel, machine learning, GCP, and tie more into Kubernetes. ▪ Playbooks, threat hunting, testing before deployment, and continuous improvement are attractive to employers. ▪ Financial sector is the largest employer for cybersecurity. ▪ Move general education courses out of the major to allow more room for data analytics courses. ▪ This program is awesome. Go Coastline!
Dwight Osborne	<ul style="list-style-type: none"> ▪ Valencia HS has an intro to cybersecurity pathway focused on cyber defense. ▪ CCNA courses, looking to do more with the middle school. ▪ Most students are interested in computer science, AI, tech side, and he sends them to Coastline for higher education after HS.
Gora Datta	<ul style="list-style-type: none"> ▪ GCP is surely trying to play catch-up. ▪ Here is an upcoming IEEE event that maybe of interest...happening tomorrow... VIRTUAL IEEE OC-CS & OC ACM TUTORIAL "DATA SCIENCE IN ACTION USING PYTHON" https://events.vtools.ieee.org/m/269267 ▪ IEEE offers a student volunteer program, mentoring projects, can be 6 months, can lead to paid opportunities for students. Faculty can be involved too.

	<ul style="list-style-type: none"> ▪ Consider block chain, digital health, non-credit opportunities for health care workers. ▪ Students need soft skills in grant writing, standards, integrate these soft skills into courses, NSF, FBIR, Confluence. ▪ IoT security is an area of continued growth. ▪ Add more marketing to share about Coastline’s programs. It’s still a hidden gem. ▪ Use the advisory board to broadcast and promote for us. ▪ Consider 3-D modeling.
Hannah Bai	<ul style="list-style-type: none"> ▪ Good direction planned for the upcoming degree and certificate changes. ▪ Looking forward to teaching AWS.
Holly Heron	<ul style="list-style-type: none"> ▪ Can help with sharing information about Coastline’s programs with GGUSD students.
Malia Mason	<ul style="list-style-type: none"> ▪ Consider adding learning modules/materials about containers, container security, Ansebel, GCP, and more courses to include Kubernetes. ▪ Students need JIRA and Splunk skills. Folks are coming in not knowing how to use Jira. That's industry standard now. Splunk you can't go many places without it nowadays. ▪ Startups need to be able to report on metrics, give presentations, etc. ▪ A lot of the startups use GCP. ▪ Startups a lot of times are more flexible with work requirements and there are a ton in SoCal, so just keep that in mind. ▪ Add cyber threat intelligence -- growing field right now (coming out of the govt space and more and more in the private space.) ▪ AppSec (offensive and web apps) has been huge - that seemed to outlast the pandemic too. Idk what you offer focusing in that area, but might want to look at it. ▪ Students need to be able to do code review. ▪ Vulnerability management work roles need scripts for tools & automation (including Python, C+, etc.) ▪ Privacy laws are changing quickly across the country, this is another area to look at for program growth or expansion. ▪ Consider Nessus and more with SIEMs. Machine learning, AI, developing scorecards and visual assessment displays. ▪ Develop education+career paths with industry certifications to display on the Coastline website to help students find the courses they need. ▪ Threat Intelligence has been evolving from detective, to preventative, to predictive. Students need to learn about this growing area to better understand the cybersecurity threat landscape. ▪ Students and community members as all the time “how to start a home lab”. (Andy and Brandon wanted to do a workshop on this)
Manoj Chitre	<ul style="list-style-type: none"> ▪ Consider a new track for MS cloud certifications. ▪ Totally agree that AWS is a leader in the space and great to work with for educators but resource permitting considering MS Imagine academy would be worthwhile in the future as MS continues to gain market share. ▪ https://www.microsoft.com/learn/paths/azure-fundamentals/ ▪ Vendor Management is a growing concern for privacy and security. ▪ Use the advisory board to recruit students.
Myra Clarke	<ul style="list-style-type: none"> ▪ Students need to be able to tell a story with data. ▪ A powerful recruitment and outreach tool is testimonials from students who went through the program as well as facts about where the jobs are and what career trajectories look like.