

## 2020 Winter ICT Educators' Conference Breakout Sessions

### BREAKOUT SESSION 1 - Monday 10:30 – 11:20

<p><b>"Python, DevNet and the Cloud"</b> (Room: Kistler)</p>	<p><b>Matthew Cloud, Ivy</b> Tech Community College</p>	<p>Learn how to get started with Python and the CISCO DevNet workshops for your classroom and why they are important. Understand how to work with Amazon Web Services Educate, Cloud 9, DevNet, Python IDLE design environments and how they play into the future of networking and cybersecurity. See demos on Python programs on API integration and how it can work with Big Data, machine learning, Augmented Reality and why that matters to networking.</p>
<p><b>"Wireshark with Laura Chappell"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Laura Chappell,</b> Chappell University</p>	<p>Laura Chappell is an American researcher and educator. She is best known as the founder of Chappell University. Her sessions are always interesting, invaluable, and entertaining. Sometimes scary too.</p>
<p><b>"The Success-Focused Classroom: Integrating Student Supports for Retention and Completion"</b> (Room: Cakebread)</p>	<p><b>Katherine Bergman and Krista Johns,</b> CCCCO, Guided Pathways Regional Coordinators, Bay Area</p>	<p>Stories and strategies for optimizing your classroom and program for student success. This session will provide stories and examples of strategies that individual instructors and entire programs have used to ensure the classroom is optimized for student retention and completion.</p>
<p><b>"Data Scientists Discuss What Students Need to Know"</b> (Room: Beringer)</p>	<p><b>Ann Beheler, Dr. Sivan Aldor, and Aaron Burciaga,</b> National CTC, Collin College, Paradigm Data Group and DataPrime</p>	<p>Experts in the data science industry will discuss the essential knowledge – both technical skills and also “softer” employability skills – students need to know to enter the workforce. Data science education programs must align their curriculum with these kinds of real-world demands of industry in order to make their graduates “workforce ready.” This moderated panel discussion will also explore larger emerging industry trends in data science and analytics.</p>
<p><b>"The Value of Implementing Cyber Competitions into your Curriculum."</b> (Room: Caymus)</p>	<p><b>Teana Fredeen, Dan Manson and David Zeichek,</b> SynED and National Cyber League</p>	<p>Cyber competitions enhance student learning by providing opportunity for real-world learning through gaming. Hear from college faculty on how to successfully implement National Cyber League into your curriculum. NCL competitors will share their experience and value of NCL and other cyber competitions.</p>
<p><b>WORKSHOP: (10:30–12:20)</b> <b>"Google Apps Mini Boot Camp"</b> (Room: Opus One)</p>	<p><b>Jorge Saucedo-Daniel,</b> Santiago Canyon College Continuing Education</p>	<p>This hands-on, minds on session will go over the Google Apps for Education (GAPE) cloud-based apps including: Google Docs, Google Sheets, Google Drawing, Google Forms, and Google Classroom. Have you heard the buzz about Google Apps for Education or Google Drive? Come and learn from a Google Certified instructor how you can take student collaboration to the next level. Come and explore all the ways you can get students using 21st-century skills in their schoolwork and daily lives.</p> <p>This training will walk users through the use of Google Classroom, Drive, Docs, Slides, Sheets, and Forms. Gone are the days of being forced to remember to hit save. Throw away those thumb drives away and enjoy having your work anywhere you have Wi-Fi access. A laptop, Chromebook, smartphone, or tablet is suggested but not required.</p>



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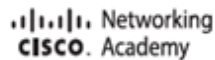
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**BREAKOUT SESSION 2 - Monday 11:30 – 12:20**

<p><b>"CA Cloud Workforce - Cloud Competencies"</b> (Room: Kistler)</p>	<p><b>Salomon Davila, CA Cloud Workforce and SME Panel</b></p>	<p>Employment market 'skill' demands for cloud technology suggest multiple pathways for students of differing levels of expertise or aptitude; however, the cloud environment will be a significant part of the tech ecosystem for many years to come. Come hear from our panel of industry subject matter experts as they describe the knowledge, skills, and abilities required for the Cloud workforce for tomorrow.</p>
<p><b>"CCNAv7: Retooled for the Digitalization of Networks"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Greg Cote, Cisco Academy.</b></p>	<p>Digital transformation of businesses, governments and entire countries requires a new network architecture that is software-driven and dependent on new skills from network administrators and engineers. In response to this, Cisco has retooled it's certification framework and the industry leading CCNA. Learn about the latest curriculum changes that NetAcad has released to align with the new CCNA and prepare students for jobs in digital networking.</p>
<p><b>"Technest Apprenticeship – Solving Employment Inequality Through Computer Programming"</b> (Room: Cakebread)</p>	<p><b>Dr. Lena Tran, Christian Desmond and Mark Branom, San Jose City College</b></p>	<p>Technest is designed to increase access for underrepresented groups to careers in IT, via a Computer Programmer Apprenticeship program that students can complete in one year. Technest partners with MIT, UC Berkeley, Microsoft, tech-industry partners, and local agencies to offer coursework, job development, counseling, and on-the-job training.</p>
<p><b>"The Impending Revolution in Data Science for the Workforce of Tomorrow"</b> (Room: Beringer)</p>	<p><b>Aaron Burciaga, DataPrime</b></p>	<p>Companies often can't fill a variety of Data Science positions fast enough because of the shortage of talent. Hiring managers need more accurate assessments of data science skills required for the work and potential data scientists need an accurate understanding of how their skills relate to job opportunities. Meeting the needs of the market requires a revolution in how Data Science talent is identified, assessed, hired, incentivized, developed, and retained. Colleges must understand how to provide "on-ramps" for their associate and baccalaureate degree programs. This presentation will reveal what revolutionary methods, technology, and processes are driving transformation in the workforce, throughout industry, and at knowledge and education epicenters.</p>
<p><b>"Cyber Student Success with Industry Certifications"</b> (Room: Caymus)</p>	<p><b>Skip Berry, Riverside City College</b></p>	<p>Promote cyber student success through industry certifications and preparation for internships/apprenticeships and employment by establishing an on-campus certification testing center and providing practice exams for course completers.</p>

**Hosted by the Western Academy Support and Training Center (WASTC), Cisco Systems, and CCC ICT/DM Sector Navigators**

**Co-Produced with CSSIA and CTC NSF ATE Centers**



**BREAKOUT SESSION 3 - Monday 1:30 – 2:20**

<p><b>"CA Cloud Workforce - Statewide Panel"</b> (Room: Kistler)</p>	<p><b>Steve Wright</b>, State Director Information Communications Technologies (ICT) and Digital Media</p>	<p>California Community College (CCC) response alternatives include the LA and Bay Region Cloud Computing Consortia, the established IT Model Curriculum and other pathways based around the overlapping skill sets that support Cloud and many other relevant technological employment opportunities. Steve will provide an update of the statewide review as an introduction to this panel.</p>
<p><b>"Oracle Cloud Free Tier + Always Free Autonomous Database = Easy Instruction and Learning in the Cloud"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Tyra Crockett and Todd Bottge</b>, Oracle Corp.</p>	<p>Come see how Oracle Cloud's new Free Tier, including new Always Free services such as Oracle Autonomous Database with APEX, empowers educators and students participating in Oracle Academy to learn data-centric application development and essential data management skills on the world's #1 SQL database – completely free!</p>
<p><b>"Escaping Gen Ed Hell: Student Success in IT"</b> (Room: Cakebread)</p>	<p><b>Matthew Cloud</b>, Ivy Tech Community College of Indiana</p>	<p>Students are often trapped for years into taking general education courses before taking a single IT course. They are often advised without knowledge there are many degree programs and credentials available in IT, which do not require calculus. The presentation will be an open discussion on topics of how to improve student success based on current research.</p>
<p><b>"Latest News on Updating National IT Skill Standards and How Faculty Can Help"</b> (Room: Beringer)</p>	<p><b>Ann Beheler</b>, National Convergence Technology Center / Collins College</p>	<p>The "IT Skill Standards 2020 and Beyond" project is creating employer-led and verified IT skill standards. Ninety employers nationwide identified the first seven high-demand job clusters. The draft results of employer meetings on skills for the "Infrastructure Connectivity, Management, and Engineering" and "Technical Support" job clusters will be shared, along with details on the project process and ways faculty and employers can get involved.</p>
<p><b>"Cisco Cybersecurity: You Got the Brains; We Got the Hooks for Cyber"</b> (Room: Caymus)</p>	<p><b>Swati Handa</b>, Cisco Netacad Learning Strategy</p>	<p>The moment we think of Cybersecurity, the first word that comes to mind for most of us is the dreaded or enticing "HACKER." Guess what? There is more, much more. During this session, we will spend 50 min to discover what job roles you could get by taking Netacad cybersecurity courses. Also, if you want to learn to "HACK" your colleague's smartwatch here at the conference, or if you ever wonder if blockchain is just about bitcoin or does it help solve Cybersecurity on a global scale, then come join me!!</p>
<p><b>WORKSHOP: (1:30 3:20)</b> <b>"Hands-on Cyber Competitions"</b> (Room: Opus One)</p>	<p><b>Irvin Lemus</b>, Cabrillo College /WASTC</p>	<p>Hands-on interactive experience into cyber competitions, covering the advantages, differences, challenges and best practices for any institution to implement. Attendees are always encouraged to join cyber security competitions and where they can get more information without being immersed in the environments to make stronger educated decisions on how to begin, resuscitate or provide a "next step" to their program or course. This presentation is aimed to change the content delivery, providing attendees with tangible evidence that they can take to their local institutions. Tools, guides and best practices will be shared alongside a fresh look at what cyber competitions is all about.</p>



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**BREAKOUT SESSION 4 - Monday 2:30 – 3:20**

<p><b>"IoT-related Resources to Help Your Students Learn and Have Fun"</b> (Room: Kistler)</p>	<p><b>Chuck Bales</b>, CSSIA / Moraine Valley Community College</p>	<p>Moraine Valley Community College received a coordination grant for IoT recently and over the last year we have been evaluating, purchasing, and adopting new content for teaching IoT. Many innovative technologies and teaching methods are at the disposal of the educator wanting to develop and teach IoT content. This presentation will discuss the information and learning activities we have gathered over the past year, including Tinkercad Circuits, IoT-related websites and smart devices.</p>
<p><b>"Start Your Student's Digital Journey with Software Defined Data Centers?"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Susan Coefield and Diane Scott</b>, VMware</p>	<p>Accelerating business demands are driving rapid digital transformation (and more jobs) in organizations, including a push for business and IT to align around applications that deliver modern customer engagement. To keep up, IT needs to deliver digital infrastructure that supports the modern application anywhere. VMware empowers you to manage and run consistent infrastructure and operations across data centers and public clouds. Hear how VMware IT Academy can jumpstart your student's cloud journey. A drawing for an APPLE WATCH will take place at the end.</p>
<p><b>"Data Analytics Pathway - Student and Instructor Discussion Panel"</b> (Room: Cakebread)</p>	<p><b>Aimee Jacobs</b>, Fresno State University</p>	<p>The panel of Fresno State members will address the current environment in data analytics, skill sets needed for industry, and a curriculum that meets these challenges. The Professor will give a brief introduction of our program and the students will discuss their experiences.</p>
<p><b>"The Plentiful Career Opportunities of Immersive Reality"</b> (Room: Beringer)</p>	<p><b>Stephen Phillips</b>, Theia Interactive</p>	<p>Augmented reality and virtual reality is about as "high tech" as it gets, but there's a surprisingly low barrier to entry to learn and develop these types of cutting-edge applications. The hardware is ubiquitous, the software is free, and every idea is a new one. In this talk, Theia CTO Stephen Phillips will introduce you to the basic concepts and the current landscape of the Immersive Reality industry and point you in the direction of learning materials to start your own "XR" adventure. Theia Interactive has been specializing in AR, VR, and other real-time solutions for more than 5 years and is a go-to technology partner for companies like HP, Nvidia, and Epic Games. Come learn how a small, young team of recent graduates was able to establish themselves as experts in this rapidly growing field.</p>
<p><b>"What is Social Engineering?"</b> (Room: Caymus)</p>	<p><b>Henry Danielson</b>, Cal Poly, San Luis / South Central Coast Regional Consortium</p>	<p>Reviewing basic steps on how Social Engineering can compromise you. Review how you can protect yourself from Social Engineering attacks. Humans are the weakest link and if we arm ourselves with knowledge, we can subvert these attacks. Learn more about the Social Engineering arena. What is SET? The Social-Engineer Toolkit (SET) What Hackers use to spoof you.</p>



**BREAKOUT SESSION 5 - Monday 3:30 – 4:20**

<p><b>"CCNAv7: Network Automation"</b> (Room: Kistler)</p>	<p><b>Rick Graziani</b>, Cabrillo College</p>	<p>Your students have learned networking skills in courses like CCNA R&amp;S: Routing and Switching Essentials. Now is the time for them to put those skills into practice using programmable networking devices and network automation. Author and long-time Cisco Network Academy instructor/trainer, Rick Graziani, will explain how network automation is enabled through RESTful APIs and configuration management tools. Rick will give great insight into what will now be included in the new CCNAv7 curriculum.</p>
<p><b>"Red Hat, Red Hat Academy, and the Hybrid Cloud"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Tricia Turlington</b> Red Hat</p>	<p>There is an evolution that is taking place in our industry, in many areas of technology, in the processes we apply to develop and build new application services, in how applications are architected, deployed, and packaged, in where applications live and where data will be stored. But as we embrace these new models, it has become very apparent, that the advancements made in our Digital Transformation initiatives cannot be achieved by technology alone. It's not just a technology shift, it involves a cultural shift. Many companies are only about 20% into their cloud journey, but as the world becomes more and more hybrid, Red Hat wants to engage in your academic mission to equip your students with the skillsets needed to embrace these new technological changes and understand how the presence of the hybrid cloud will continue to evolve the business and communities around us.</p>
<p><b>"Cyber Workforce in Crisis! Ensuring Your Program is Strong &amp; Effective"</b> (Room: Cakebread)</p>	<p><b>Donna Woods and Teana Fredeen</b>, Cyber-Guild / SynED</p>	<p>We know the critical status of our cyber workforce, as it impacts every industry sector. You are on the frontline developing the next generation to ensure the workforce is ready, strong, and competent. Faculty professor by day, Super Cyber Hero by night. Join us for an informative and interactive session of networking, resource attainment, and developing your K-16 pipeline to help you prepare our future league of cyber defenders.</p>
<p><b>"Near-Term Effects of Automation and Artificial Intelligence on Jobs Landscape"</b> (Room: Beringer)</p>	<p><b>S.R. Subramanya</b>, National University</p>	<p>Automation has been a human quest since modern civilization. Tasks which are routine and mundane have been good candidates for automation. With advances in computers and software, numerous aspects of workflow in a variety of verticals – manufacturing, engineering design, transportation, retail, banking, have been automated. These have resulted in several shifts in the jobs landscape. The recent advances in Big data, Analytics, Machine Learning are expected to automate numerous tasks. There are likely to be the elimination of several jobs, creation of new jobs, and transformations of several existing jobs. In this presentation, we will cover several aspects of automation, Artificial Intelligence, the changing jobs landscape, and the skillsets expected in the near-term future jobs.</p>
<p><b>"Cyber Up! Digital Forensics and Incident Response Project"</b> (Room: Caymus)</p>	<p><b>Tobi West</b> Coastline Community College, <b>Anna Carlin</b>, Fullerton College</p>	<p>The Cyber Up! Digital Forensics and Incident Response Project is an NSF ATE project started in October 2018. The presentation will cover the various grant activities completed in year 1, along with the planned activities for years 2 and 3.</p> <p>The project will focus on the development of curriculum that will teach students and professionals the cybersecurity knowledge and skills of digital forensics and incident response, which need to be deployed in real-time and are dynamic to changing situations during and in response to cyberattacks. In the first year, cybersecurity workforce frameworks were used to develop 6 online course outlines, a Certificate of Achievement, and an Associate of Science degree in Digital Forensics and Incident Response. The advisory board provided information about in-demand job skills for industry and government work roles to assure that the courses meet current industry needs.</p>
<p><b>WORKSHOP: (3:30 – 5:20)</b> <b>"Model Driven Programmability (ETW3)"</b> (Room: Opus One)</p>	<p><b>Echo Rantanen</b>, Cisco Academy</p>	<p>With the increasing size of the modern network and the frequency of changes required by the business, managing and automating networks via a Command Line Interface (CLI) is ineffective and error prone. A new approach, using Model Driven Programmability, enables transactional changes, by defining standardized device models and APIs. This workshop introduces students to device level programmability competencies, to automate configuration and management tasks using standardized YANG device models and using the RESTCONF and NETCONF device level APIs.</p>

**BREAKOUT SESSION 6 - Monday 4:30 – 5:20**

<p><b>"Coding and IoT using Raspberry Pi Desktop USB"</b> (Room: Kistler)</p>	<p><b>Bruce Brumley</b>, City College at MSU Billings / WASTC</p>	<p>Steve Jobs wrote, "I think everybody in this country should learn how to program a computer because it teaches you how to think." Come join us to learn how to use the powerful coding language of Python and Scratch. We will be using a copy of the Raspberry Pi Desktop on a USB drive that you can take home and continue your coding and IoT adventure on your own. I will demo the Raspberry Pi Desktop USB to complete IoT activities. This will include the Sense Hat emulator, breakout pins using a Raspberry Pi Zero, traffic light, LEDs, switches, buzzers, etc. Scratch and Python will be used in the activities. Please bring your own laptop and follow along with the information and demos. A USB will be provided with the Raspberry Pi Desktop image already setup for use.</p>
<p><b>"VR in the Classroom: Possibilities for Engagement, Exploration, and Practice"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Dennis Frezzo and Muffie Weibe</b>, Cisco Learning Sciences Team</p>	<p>Imagine if you could bring abstract networking ideas to life for your students. Imagine if you could take them to places like data centers from within your classroom. Come see what the NetAcad Learning Sciences team is exploring for how VR can help Instructors optimize students' path to mastery by including fully immersive, engaging experiences in classroom learning. VR is transforming training and education. Join us as we look at the possibilities it could provide for student engagement, exploration and practice.</p>
<p><b>"Cybersecurity – End-User Awareness Training – Workforce Development"</b> (Room: Cakebread)</p>	<p><b>Annette Nylander</b>, Sierra College</p>	<p>Explore critical topics of End-User training to help organizations including our colleges improve their cyber defense posture. Take it on the road to employers through Workforce Development Contract Ed. Department of Defense DOD to develop and rollout a statewide approach to help small and medium sized companies meet the new Cybersecurity Maturity Model Certification that will be required to keep their government contracts with DOD. The trainings are being developed for 3 target audiences, End-Users/General Employees, Managers and IT Professionals. Come learn about how and why you can be part of this effort to help secure our nation.</p>
<p><b>"Career Pathways"</b> (Room: Beringer)</p>	<p><b>Stephen Montero and Suzanne Davis</b>, ConvergeOne</p>	<p>ConvergeOne is a leading IT services provider of collaboration and technology solutions for large and medium enterprises. Come hear from Stephen and Suzanne about their models of students pathways from classroom to career..</p>
<p><b>"OSINT for CEH/CyberSec: Open-Source for Certified Ethical Hacking, Cyber Security and Pentesting!"</b> (Room: Caymus)</p>	<p><b>John Gonder</b>, Chabot College</p>	<p>Description. Gathering information is key to pentesting and auditing, as well as validation of information integrity and availability. Beyond simple Google dorking and port scans, OSINT techniques include important OPSEC and COMSEC for CEH practitioners. Learn and add these to your CEH class. BYOD. Takeaways include templates, scripts and resources for OSINT used by FBI and other agencies.</p>



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**Our Mission**

**We Share a Common Goal of Long-Term Student Success**



**BREAKOUT SESSION 7 - Tuesday 10:30 – 11:20**

<p><b>"CCNAV7: WLAN Configuration"</b> (Room: Kistler)</p>	<p><b>Burce Brumley</b>, City College at MSU Billings / WASTC</p>	<p>Implement a WLAN using a wireless router and WLC.</p> <ul style="list-style-type: none"> <li>• Remote Site WLAN Configuration: Configure a WLAN to support a remote site.</li> <li>• Configure a Basic WLAN on the WLC: Configure a WLC WLAN to use the management interface and WPA2 PSK authentication.</li> <li>• Configure a WPA2 Enterprise WLAN on the WLC: Configure a WLC WLAN to use a VLAN interface, a DHCP server, and WPA2 Enterprise authentication.</li> <li>• Troubleshoot WLAN Issues: Troubleshoot common wireless configuration issues.</li> </ul>
<p><b>"Cisco Talent Bridge Program – Connecting Students to Employers in the Digital Workforce"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Donna Wright and Trent Dorroh</b>, Cisco Talent Bridge</p>	<p>The Talent Bridge program representatives will discuss the multiple ways Cisco is investing in preparing NetAcad students for employment. They will cover the following topics to include but not limited to:</p> <ul style="list-style-type: none"> <li>• Matching Engine</li> <li>• Online Resources</li> <li>• Dream Team</li> <li>• Virtual Job Events</li> </ul>
<p><b>"Zero Textbook Cost (ZTC) Collaborative Online Cybersecurity Certificate Program"</b> (Room: Cakebread)</p>	<p><b>Dr. LeBaron Woodyard</b>, State Center Community College District</p>	<p>597 Applicants Already for a Multi-College Shared Online Cybersecurity Certificate of Achievement. Three California Community Colleges from three different regions of the state have teamed up to offer an online cybersecurity Certificate of Achievement that can be completed entirely online by any student in California. Cosumnes River College, Fresno City College, and Los Angeles Pierce College jointly offer the Collaborative Cybersecurity Program, an online program that was developed to serve students looking for a stackable certificate that will deliver both job opportunities and potential for advancement.</p>
<p><b>"Digital Essentials: the Entry Point for an IT Career"</b> (Room: Beringer)</p>	<p><b>Echo Rantanen</b>, Cisco NetAcad Product Management</p>	<p>More than 90% of professional occupations nowadays require digital competencies. The Networking Academy Digital Essentials courses offer a critical foundation for students pursuing any technical career. Our portfolio continues to be refreshed including the new IT Essentials 7.0 and the popular Python Essentials. Come learn the latest and get some insight into what the future holds.</p>
<p><b>"Ways to Achieve a Seasoned Cybersecurity Workforce"</b> (Room: Caymus)</p>	<p><b>Patricia A. McQuaid</b>, California Polytechnic State University, <b>Stephanie Cervantes</b>, Secure Smart Solutions</p>	<p>Ransomware, phishing schemes, voting improprieties, and data breaches are increasingly challenging our infrastructure and privacy. But there is a severe shortage of cybersecurity workers in the United States that puts our digital privacy and infrastructure at risk. One of the big problems is in finding qualified people to fill these jobs. This talk will discuss these issues and suggest a range of options to both attract new employees and keep those we have.</p>
<p><b>WORKSHOP: (10:30–11:20) "Network Development Group Update for NETLAB+ and Hosted Services"</b> (Room Opus One)</p>	<p><b>Jason Zeller</b>, NDG and Fort Hays State University</p>	<p>Network Development Group (NDG) supports many IT job skills training. NDG has two products. NETLAB+ is a lab solution an academic institution can host so labs will be available to learners at no cost. NDG online is a web-based learning platform environment that includes course content, videos, hands-on labs, etc. NDG is working on several projects including updating Cisco Networking Academy labs, VMware IT Academy content and labs, Red Hat Academy lab updates, Linux course updates, Cybersecurity lab content, etc. During this session, NDG will provide an overview of new content and labs.</p>

CALIFORNIA CLOUD WORKFORCE  
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**BREAKOUT SESSION 8 - Tuesday 11:30 – 12:20**

<p><b>"CCNAv7: LAN / Switch Security Concepts"</b> (Room: Kistler)</p>	<p><b>Bob Samson</b>, Mesa College / WASTC</p>	<p>This session will include new LAN security concepts and configuration being added to the CCNA-2v7.0 curriculum. Concepts presented include endpoint, email and web security, authentication, Layer-2 vulnerabilities and attacks. Configuration topics include MAC address flooding, VLAN hopping, DHCP snooping, DAI, STP, CDP, BPDU Guard, and Portfast.</p>
<p><b>"The Google IT Support Professional Certificate: One Year Impact &amp; CC Use Cases"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Kate Johnson</b>, Google</p>	<p>In this session, we'll share:</p> <ul style="list-style-type: none"> <li>• How the Google IT Support Professional Certificate fits into the future of work (automation among employers = a greater need for IT fundamentals and troubleshooting capabilities)</li> <li>• The impact of the Google IT Support Professional Certificate and job placement indicators determined in our one-year impact study</li> <li>• Our plan to scale to 100 community colleges nationwide in 2020</li> <li>• Interesting use cases of the IT Cert, such as College of the Canyons' pre-apprenticeship model and employer engagement with CC learners (e.g., Grand Rapids CC interview day for IT Cert completers with a national hiring consortium member)</li> <li>• Learnings as we scale.</li> </ul>
<p><b>"ICT Training Partnership for Student Success"</b> (Room: Cakebread)</p>	<p><b>Adanta Ahanonu and Dr. Despina Prapavessi</b>, Year-Up and Diablo Valley College</p>	<p>Come learn about how the Year Up/Diablo Valley College partnership works to promote student success in tech careers. A national nonprofit organization, Year Up provides an intensive, one-year (two semesters) technology-training program for Diablo Valley College students that combines hands-on skill development with professional internships at some of the Bay Area's top companies.</p>
<p><b>"Introducing a New Toolkit to Help Engage Employers and Make Graduates Workforce Ready"</b> (Room: Beringer)</p>	<p><b>Ann Beheler, Mark Dempsey, Mercedes Adams and Aaron Burciaga</b>, National Convergence Technology Center / Collins College</p>	<p>Learn how to employ a new toolkit resource that provides essential strategies and processes for successfully implementing the "BILT model" that energizes employer relationships and ensures students learn the skills they need to be "workforce ready." Session will include perspective from a member of the National Convergence Technology Center's BILT.</p>
<p><b>"Curriculum Alignment Governance, Risk Management and Compliance (GRC) "</b> (Room: Caymus)</p>	<p><b>Mike Masino</b>, Madison College / CSSIA</p>	<p>This workshop introduces instructors to a set of course materials developed by CSSIA to train students in the knowledge and skills needed to be prepared for the Qualified Security Assessor (QSA) exam. A Qualified Security Assessor is a person who has been certified by the PCI Security Standards Council to audit merchants for Payment Card Industry Data Security Standard (PCI DSS) compliance. The GRC workshop will teach you how to train students to perform assessments of merchants and service providers who must comply with the PCI Data Security Standard. The course focuses on the 12 high level control objectives and corresponding sub-requirements that are required for compliance. The full version of this course is Split into two parts, the course consists of an online component and a two-day instructor-led session.</p>
<p><b>WORKSHOP: (11:30–12:20)</b> <b>"High Speed Networks – Networking Tools and Protocols"</b> (Room Opus One)</p>	<p><b>Jason Zeller and Jorge Crichigno</b>, NDG, Fort Hays State University, University of South Carolina</p>	<p>University of South Carolina (USC) has developed High-speed Network labs to help instructors teach High-speed Network concepts. These labs are available for NETLAB+ customers and as a hosted service via NDG portal services. High-speed networks are being deployed in research universities and by financial institutions. During this workshop the labs will be presented. Attendees will be able to complete lab using 10 Gbps networks. The labs will educate learners on how to deploy emulated high-speed labs in Linux, the importance of resolving latency, jitter, provisioning enough buffer size at routers, testing different congestion control algorithms, mitigating bufferbloat problems, and other issues that are extremely important in production networks.</p>



**BREAKOUT SESSION 9 - Tuesday 1:30 – 2:20**

<p><b>"CCNAv7: VPN and IPsec Concepts"</b> (Room: Kistler)</p>	<p><b>Don Aragon</b>, San Diego Continuing Education / WASTC</p>	<p>This session will feature IPSEC and VPN topics covered in the new CCNA v7 curriculum. Topics will include best practices for presenting VPN concepts, IPSEC framework and configuration examples to demonstrate secure site-to-site connectivity.</p>
<p><b>"Programmable Infrastructure and NetAcad Engagement with DevNet"</b> (Room: Silver Oak/Jordan)</p>	<p><b>Wadih Zaatar</b>, Cisco Academy</p>	<p>The networking and IT industry is evolving toward a programmable infrastructure, Cisco is leading the change creating in every product and solution API to extend the functionality. DevNet has developed a new Certification to qualify the skills of young professionals and NetAcad is very well positioned to capture this new career opportunity. Learn more about this opportunity and more in general how the NetAcad and DevNet engagement is valuable for students and instructors.</p>
<p><b>"Job Challenge, A Cybersecurity Program for at Risk Youth"</b> (Room: Cakebread)</p>	<p><b>Ben Izadi, Henry Hua and Rochelle Sonza</b>, Cypress College</p>	<p>Cypress College's CIS department is cooperating with the Sunburst Youth Academy to increase employability of a group of at-risk youth by completing the Cybersecurity college certificate in one semester. The latter requires completion of four Cybersecurity courses and participation in at least two related industry exams. Sunburst Youth Academy oversees the Job Challenge Program with the mission of reclaiming lives of 16-18-year-old high school dropouts and producing graduates with the values, life skills, education, and self-discipline. The challenges in recruiting and implementing the Cybersecurity program will be discussed along with preliminary outcomes (first cohort) and best practices.</p>
<p><b>"Big Data Analytics and Data Visualization Dashboard: Are We Teaching Our Students Such Skills?"</b> (Room: Beringer)</p>	<p><b>Rajiv Malkan</b>, Lone Star College</p>	<p>Big data analytics and data visualization are becoming a norm in business today. Data visualization allows an organization to interact with data and identify business trends and insights. As we create more data, understanding and presenting data in a meaningful way is becoming a skill set in much demand. Are we teaching our students to incorporate such tools in their courses? A couple of labs using data visualization tools such as PowerBI, Tableau can be incorporated in the curriculum to make our students more marketable. This presentation will demonstrate how we can take different data sets and convert into a meaningful visual format for better understanding and decision making.</p>
<p><b>"The Transformation of California Cybersecurity Higher Education and Workforce Development Through Career Education Pipeline/Pathway"</b> (Room: Caymus)</p>	<p><b>Keith Clement, Markus Geissler, Tolgay Kizilema, Miki Bellon, and Richard Valdez</b> Governor's Cyber Task Force</p>	<p>There is a tremendous amount of innovation and change occurring across California cybersecurity education/higher education and workforce development to report. Our panel discusses the strategic advantages and benefits of a statewide cybersecurity career education pathway to reduce current (and growing) critical workforce capability/skill gaps. First, we discuss the development and implementation of statewide undergraduate cybersecurity model curriculum/academic standards. This is one key component of a linked and coordinated cybersecurity career pipeline to include all levels of education (from K-12 through Advanced Graduate Degrees/Professional Certifications. Second, we discuss a linked cybersecurity apprentice program (2000 hour on the job training) to accompany the degree program and career pipeline. Finally, we discuss a variety of key strategies for supporting/recruiting/retention of women; transitioning military, veterans, disabled veterans; and traditionally underrepresented backgrounds into the specialized and professional field of cybersecurity.</p>
<p><b>WORKSHOP (1:30 – 2:30): "Zeek (Bro) Intrusion Detection and PerfSONAR"</b> (Room: Opus One)</p>	<p><b>Jason Zeller and Jorge Crichigno</b>, NDG, Fort Hays State University, University of South Carolina</p>	<p>University of South Carolina is developing Zeek (Bro) Intrusion Detection and perfSONAR performance testing labs. Zeek (zeek.org) is a popular research and high-speed network Intrusion Detection Software based on 20 years of research and deployments. perfSONAR (perfSONAR.net) is a widely deployed test and measurement infrastructure that is used by science networks and facilities to monitor and test network performance. This will be a hands-on workshop. Attendees will be able to complete one or more labs from each lab library.</p>

