**Minutes**

**Computer Information Systems (CIS)**

**& Computer Science (CS)**

**Advisory Committee Meeting
May 11, 2018**

**Mimi’s Café, Rancho Cucamonga**

**Business/Industry Members:**

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| Bryan BookmanNetwork EngineerKaiser PermanenteCorona, CAbcbrookman@gmail.com Cesar ChavezInformation Technology and Grid ServicesSouthern California EdisonCesar.chavez@sce.comJames GrantBusiness Systems Analyst IISan Bernardino County Probation909.387.6077JGrant@Prob.SBCounty.govIvan JacoboNetwork AdministratorOntario-Montclair School District950 W. D StreetOntario, CA 91762igjacobo@gmail.com | Claire Jefferson-GlipaIT Education Account ManagerConverge One, Inc.Cjefferson-glipa@convergeone.comBryan K. KolodziejSenior Systems and Network AdministratorUpdate PromiseBryan@aernovo.comChristopher LaaschLead Systems SecurityCal Poly Pomona909.753.8524claasch@cpp.educlaasch@csupomona.eduWilliam SouthwickNetwork EngineerUniversity of California, Riverside951.827.2527 or 951.333.1419wills@ucr.edu | **Chaffey College Members:**Terri Helfand, CIS Coordinator James (Jim) Kerr, CISCO InstructorTracy Kocher, CIS InstructorDavid Nimri, CIS InstructorSteve Siedschlag, CIS InstructorSusan Starr, Counselor |
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**Welcome and Introductions**

Meeting was called to order at 8:20 a.m. by Terri Helfand, Chaffey College CIS/CS Program Coordinator. Terri welcomed business and industry committee members and asked for self-introductions including name, title, and employer. Chaffey College CIS faculty introduced themselves and their field of specialty. Terri introduced the newest faculty member, David Nimri, and announced Tracy’s accomplishment; the earning of her Ph.D.

Tracy Kocher discussed Guided Pathways, and the social media and Python classes. Terri announced the course name change of CIS-68 to Internet Technologies.

David Nimri distributed a Chaffey Cyber Hub Plan informational packet (attached) to each attendee. The packet includes the Introduction, Goals & Pedagogy, Major Activities & Outcomes, Cost of Course per Student, Cyber Security Courses, Implementation, 3 Year Activities Plan, and Planned Certificate & Degree’s in Cyber Security at Chaffey College.

David wants to provide a holistic approach – hands on skills cyber related education with the purchase of equipment allowing students to access tools used in the field and provide additional learning experiences through the Cyber Club and program events.

He discussed the flow chart for the 3-year educational plan and course work related to the alignment, employability and competition related in this field. The courses discussed were Ethical Hacking and Virtualization and Cloud course that interlock with security. David is collaborating with Cal State San Bernardino to allow for courses to transfer.

Discussion followed.

CID: Steve Siedschlag mentioned the dedication to Linux for security.

A member mentioned that developers have no system experience and would like to see it through a job opportunity or Systems class. Systems programming is offered through a CIS basic programming course.

A virtual environment will allow students the opportunity to troubleshoot. Cal State San Bernardino will be using Unix/Linux through spring. The preference is to be taught through Windows. A member would like to see developers have an introduction course on writing code and using open permissions; he feels that developers are too trusting.

Claire Jefferson-Glipa would like to see the level of communication with non-technical terms addressed. Tracy assured the members that the programming classes focus on team building; and, Wanda Baker covers customer service in her courses. Claire would like a cyber-awareness skill set focused on sharing the responsibility of the service provided with end users. Professionalism is lacking in industry.

Susan Starr recommended COMSTD-4, a communication course.

Skills badging is a trend that will be used for employability skills.

Tracy is creating a pathway. The 1st year will be basic courses geared towards a foundation certificate.

Cesar Chavez notified the members of SCE’s internship program for sophomores. The internship is for 8 hours a week. He also highlighted a concern for protecting critical infrastructure from cyber attacks.

James Kerr reported that Chaffey’s CISCO students beat Stanford and Berkeley students in competition. 46 students completed the CISCO A+ Security certification.

Students can gain employment in the fields of electricity; manufacturing, and IT departments; a middle position would require and Associates degree. For example, manufacturing requires knowledge of control systems in conjunction with security.

CISCO classes articulate to a 4 year institution.

Tracy is the advisor for two clubs: Computer Science and Game Club. The students are producing games using 3D platforms and will create mobile games during the fall term.

A recommendation of practical applications – to develop syntax, API’s – was suggested. The need for qualified candidates with cloud experience is highlighted. API’s are a critical component of integrating systems in the cloud.

Christopher Laasch’s concern is the non-compliance of web courses; pages with no control are open to liabilities. OWASP fundamentals initial security in programming. Teaching compliance as it relates to security control would be beneficial to students. Students need to understand and interpret the laws as it relates to security control.

David Nimri will work with Tracy to create a class that addresses this.

The group as a whole highlighted that the difficulty to find qualified cyber security professionals and cloud administrators.

Christopher would also like to have candidates understand and interpret logs. Are the logs in front of them a DNS security risk? We need cyber security courses that cover this type of risk. With everything moving to the cloud, there is two needs. Firstly, individuals that can work as cloud professionals and individuals with security experience to protect data in the cloud. The DMZ line is changing.

Ivan Jacobo confirmed the teaching of Python in elementary schools.

Terri asked if SWIFT is used anywhere. A member said that mobile development uses SWIFT, but Python is versatile and should be used as the foundation.

Students are taught programming first and introduced to Python through the course work.

Claire would like Chaffey to focus on coursework that allows students to transfer to the UC level. More graduates are moving towards earning their Ph.D.

The goal of CS and CIS is to re-educate people working in the field. CIS-1 is no longer a graduate requirement. Industry representatives agreed that CIS 1 is a foundation for computer fundamentals for all workers.

James Kerr identified technical writing as a weakness in the certification. Claire would like to see a communication fuse exist. An IT capstone may consist of writing a procedure, end-user documentation, and report. The ethical class will address SSP writing in the final project.

Terri thanked members for attending also commenting that the CIS/CS program hosts this meeting once each year to have members share the trends they are seeing, review curriculum to see if what is offered is meeting their needs or if there are changes that need to be made. The program is concerned with employment outlook and other input members may want to share.

She referred members to the questionnaire handout and asked that they be completed and returned to her, either at the end of the meeting, or emailed to her once they have had a chance to complete it. She also asked members to add any additional comments they may have in their responses or to send her an e-mail.

Meeting adjourned at 10:00 a.m.