

**NORTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT
CYPRESS COLLEGE
CIS ADVISORY COMMITTEE MEETING**

DATE OF MEETING: APRIL 30, 2020

LOCATION: CYPRESS COLLEGE, ZOOM Meeting

MEMBERS PRESENT: Peter Molnar, Meeting Coordinator
Tim Menjivar, Area IT Manager, Marriott
Kaveh Farahmand, Business Systems Analyst Schools First FCU
John Stinson, Data and Programming Analyst Pacific life
Amir Khan, Adjunct Instructor
IT support and Broker Compensations, Kaiser Permanente
Robert Grantham, Business & CIS Counselor

WELCOME AND INTRODUCTIONS –

Peter - Welcomed all of the representatives present and thanked them for coming. Peter's goal is to talk about Cypress College's program and ask the advisory members what they see in the industry and get their perspectives.

New Data Analytics and Data Management Certificates and courses under development -

Peter - Shared the new Data Analytics Certificate Program which includes the courses: Probability and Statistics from a math perspective, Excel, Python Programming, Introduction to Data Analytics, Data Visualization, and Career Exploration. The first development is Introduction to Data and Analytics which takes a look at data analytics and big data. It also shows how you can pull data to make it useful. The second development is Data Visualization. There are quite a few different products out there but the department went with Tableau. We made the course a bit generic in the sense where we could incorporate more than one product if need be or change the product as the industry changes. This is an 18-unit certificate program. A very motivated student could probably complete the certificate in one semester, but it would more than likely one year. Peter asked the advisory members if this would be a useful certificate.

Tim - He would definitely be interested in this certificate. Tim stated that Marriott hotels use all kind of data for different things, such as to pinpoint what age groups book rooms and at what type of hotels.

John - the company he works for has a feed-in with one of the divisions that uses Tableau and everything they use is on this certificate. John thinks that the certification would be more for someone who is already in the company who may want to get more information. He mentioned that he went to a job search and employers are looking for people that have a minimum of a four-year degree.

Kaveh - Schools First has a robust SQL database that they use for their business analytics that their DBA's use. Most of the business analysts that do a lot of querying and reporting use a program called "Elation" which is a web based application. It resembles a community web app where each individual can write queries in the web app and share their queries with other business analysts. For visualization of that data, we use "Dundis", which ties into "Elation". It allows us to make different dashboard self-service analysis reports. Those dashboards get sent out via hyperlinks and are hosted on the web servers. As for as the Data Analytics Certificate, he sees it as a great entry-level position for a business analyst position.

Amir Khan - uses Tableau, Hadoop, and some Python analytics. Kaiser also uses their own program using just regular programming data sets as well. Overall, having just some of the basic knowledge of some business analytics and having a high school diploma; there are abilities to get in with an employer, but it also depends on the area. To sum it up, this certainly looks to be a great certificate for Cypress.

Peter - Data Management Certificate Program - One of the main goals that we are working on with this particular certificate is incorporating a capstone course. We are working with a data science company in Irvine that also offered a work placement program. Peter has not been able to reach anyone at this company since COVID-19 started, so the development of the capstone course has been slow. In order to get this certificate program through the pre-launch curriculum approval process, this particular capstone course could not listed at this time; but it can be added at a later time. With that being said, there are additional courses that we included in this certificate with a longer term goal of having both certificates leading to an associate degree. The additional courses are: Linux Operating System, Introduction to Oracle with SQL, IT Project Management, Introduction to Python, Advance Python, and also career life planning and counseling courses.

John - What I think is important is to get the basis of IT. A person should get the core of everything first and have a solid background.

Henry - As much as we would like to envision our student and do this correctly as Peter has said, this is a stackable certificate where students would start off with the Data Analytics Certificate. We are actually building a stackable technical skill set. Hopefully, the end goal is an AA or an AS Degree in Data Science. The program description is, "This program helps prepare the student for employment and further study in data management and science fields". If you add up the units and include the capstone course, in addition to the prior courses, the student would have over 36 units in a specific area of data science. With the remaining amount of units, this gives us a total of 60 units for an AA Degree, which means the student will complete 24 units of general education. The normal AA Degree is actually 60/40 meaning 60 percent general education courses and 40 percent major courses. We specifically reversed those percentages because industry recommendation was that they wanted somebody that had more than just a surface understanding of the product or area of emphasis. I still understand that there is a lot of value in general education so this provides a well-rounded education. We still want the student to be able to write, understand mathematics, understand critical thinking, and have that overall perspective. You also see in our program that we really want to emphasize the idea of a career so we included the Career

and Life Planning counseling course. We want the student to understand that they are going into a career with an emphasis in data science. If the student decides to go into a more in-depth four-year program, all of these courses are CSU transferable and some of them are even UC transferable. Our two python courses are UC transferable. One of the great things about this program is that it allows a student many options if they decide they want to move forward with a four-year degree path. The student could get a job and have that job supplement their time while getting a degree.

Amir - He followed this type of format when he was going for his four-year degree.

Tim - Asked his cousin, who was graduating from Dominguez Hills in May, what was missing from his college experience. His cousin told him he learned bits and pieces. If he was able to focus on one thing rather than just bits and pieces, it would have been better. His cousin told him that he took a database class, a networking class, and a security class. He really liked the networking class, but it was only a little bit of information and not enough. Tim added that it is nice that you are offering this program where it is concentrated on one area.

Aruba/HP - Training center -

Peter - Henry sent an email asking if we were interested in becoming an Aruba/HP training center. Our District is in the middle of conducting an IT rollout. It will be based off of Aruba for the wiring and HP for the switching. Currently, our campus is a Cisco training academy and we offer Cisco courses, which as most of you know, **is a 100 pound gorilla training and technically out there????**. Do you think this new training center would be a good idea?

Tim - Speaking on behalf of hotels, Aruba, HP, and RUCKUS are the primary Wi-Fi systems that are installed in every single hotel. From a small Fairfield Inn to a huge convention hotel, they are primarily using Aruba and HP. I would join this class. It is good to know these systems, especially in my career in the hotel industry. At one point, the big go-to in the hotels was to use RUCKUS access points and HP switches. Now they are trying to standardize it so when they install HP switches, they also want to install Aruba access points because they are the same brand. Now RUCKUS is making their own switches, and I believe they are collaborating with Cisco. If they put in RUCKUS access points, they want them to put in Cisco switches.

Kaveh – He does not deal with the IT side of the network infrastructure. From working with his IT staff, he does know they are primarily a Cisco organization. All of their wireless around the campus and their branches are pretty much wired with Cisco.

John - Everything is outsourced with his company.

Henry - We are trying to figure out the best way to give a student a universal education that allows them to decide what they want to do. For example, if the student wants to be a Tableau expert or an Adobe Analytic expert, it gives them the foundation to decide. The student has the opportunity versus having

them so niche that they can only use this piece of equipment or that piece of equipment, which then goes out of date. We are trying to maximize our time with our students with the technologies that we have, but also give them enough exposure so they are not lost. Instead of HP and Aruba being primary, we were thinking of offering them as seminars or webinars. We would not necessarily offer them as a certificate program. It would be more like continuing education or professional growth. What are your thoughts on this?

Tim - I was just mentioning Aruba and HP because I work with them a lot, but we use Cisco and all other equipment. Small businesses have different types. It would be nice to know the basic fundamentals of everything.

Amir - You still have consulting companies out there always trying to recruit new talent. They usually try to find young people that are willing and eager to learn. By students having these certificates, knowledge, and their ability to learn new programs, these consulting companies will recruit them. Accenture is a company that is always looking for new recruits. IBM deals with a lot of our network stuff as well.

Kaveh - As long as what you offer teaches the fundamentals of networking that is used through the technology world, I think you will be fine. From what I took from my ISDS courses and working in the IT field, whenever I learned the fundamentals it made it much easier to learn specific technologies from different vendors. So as long as the foundation is there, I think this going to be good.

Office Automation Certificates and Courses -

Peter - Business Information Worker Certificate - Do you see any value in this sort of entry level position, i.e., administrative assistant? Do you think it is worthwhile having, and to expand on that, are you still using any of this software or is it kind of working its way toward irrelevance?

John - You need to know this basic stuff. The millennials do not know this stuff. They cannot do any of the stuff that is needed and you have to explain it to them.

Tim - The millennials do know this stuff. I feel like I have to teach the older generation how to do stuff.

Kaveh - These are critical software programs to our organization and they are used across the board. Word document formatting is critical. The marketing department does not use Windows, they mostly use Apple products. In Excel, we teach an intro class like macros. I found that to be very important because a lot of employees from our information team do not understand the power of being able to format monotonous tasks over and over again. So understanding that power in Excel would be helpful. Everything else is definitely important.

Tim - All of this is definitely a good thing to have. It definitely needs to be relevant.

Job skills our CIS-related certificate programs should focus on -

Tim - Information Security feels like it is the biggest skill especially in our industry.

Peter - We do have information security. Quite a bit of drives towards that as well.

Henry - Cypress College is actually one of four community colleges that is a center of Academic of Excellence in CyberSecurity, so that is a huge area which we are focusing on. We have CyberSecurity, CyberDefense, and Information Assurance. Those are all of the areas that we cover. We are also in the process of revamping our forensics program. By offering data science, forensics, and cybersecurity, we are giving the students a good overview in Information Security.

Specialized training needs for new college graduates -

Amir - Web Development and Mobile Programming.

Henry - We use to offer those programs and still can. I think our biggest concern is the number of number of faculty we have. Currently, we have five full-time faculty members. In making sure we have enough of the general education courses plus the major program certificates that we are trying to get out to the public, those covers the majority of our five full-time faculty members' teaching assignments. We want to make sure that we give our students a massive amount of exposure to the highest level of job availability skill set, not that web and mobile programming don't have that niche. We want to make sure that the students have a foundation in Computer Programming, and specifically more towards computer science, before we start to establish something stronger in web development and mobile development. When we created these types of courses in web development and mobile development, we found the students did not have a strong foundation in programming syntax and programming logic. Students would say they wanted to program web, but if you use [wiki wicks and use WordPress](#), there has to be some understanding of syntax and programming logic to make a website well versed. We do not want the students to have a false sense of security where they go out and become a web programmer, but then do not have that foundation strength. So I think our goal is to foundationally build a programming program and add those certain pieces. Once we develop that foundation, we will have a good base for the student.

Amir - Yes, that makes sense. Overall, I mean the web development. I am in a series of languages, and they each have their different skill set; but syntax is almost the same. It is just knowing how to incorporate all six or seven of them that you are going to use for development. You have your content management systems that are available, but if you are going to teach from a coding perspective, then definitely the students would not need to have programming.

Henry - I think that is the biggest reason why we picked Python as a basis language. Python can be used with scripting language in a web development foundation that can be built. We build Python within a web development kind of environment for Data Science, which is what we want to do for web

development. We have not had a large contingency of students in programming or taking programming classes from us, and we want to build that first. From that standpoint, we are very proud and hoping that we will have our first Associate Degree for Transfer in Computer Science this fall. Over the last year, we worked to ensure that we had that foundation for our students.

Kaveh - I think that communication is a really big skill that some graduating students are lacking. I have noticed at times that a few people on my team and even in my department have a hard time communicating the business problem that they are trying to solve to the department or the organization heads. When it comes to meetings, they do get flustered. So I would say, communication is a great skill that is needed during a presentation or when trying to relay what is in your head. What is your project? What is it that you are working on a day-to-day basis? I think that would be a valuable skill for recent graduates.

Henry - Communication is one of those skill sets that is very hard to quantify. How would you evaluate or be able to evaluate somebody that would be communicating as a new employee within your organization? What would it take for them to show you that they have done “XYZ”, therefore they are a good communicator? We are trying to use a digital badging system to use as that assessment. How would you evaluate a person who came to your organization and said, “I have all these special skills, technical skills, I completed this seminar, I did this workshop, and I obtained this communications badge.” Would that suffice?

Kaveh - I think so, yes. If they were able to describe what that program entailed, and how they were able to use those skills in the program, I think that would suffice in showing me as an employer that they have the ability to communicate effectively.

Tim - I think that would help a lot. A lot of people start to communicate by sending and replying to simple emails or talking about a program or something similar. I definitely think a badge like that would be helpful.

Henry - Another one that we have a hard time quantifying and assessing is critical thinking. It is one of those broad terms that is very hard to know how and when someone will be using it.

Amir - Critical thinking has evolved into a more emotional intelligence type of thing. It is not necessarily critical thinking, such as research. I think the skill set that is going forward and what you see in multiple industries is how to be able to evaluate certain parts of information and make an intelligent decision in a process that you can move forward. If you get that perspective and maybe teach in that form and can use emotional intelligence to be that critical thinking factor in how it pertains to each of the topics that you are going to learn, then you are going to win with that type of skill. A lot of students do not have that skill right now because their emotional intelligence is based on what they are learning via the phone and what they are seeing on it, which is very short, sporadic information. They are not able to form actual business models and understand how it all works together. This is what has to be taught.

Henry - So how do we showcase that to a potential employer where you would say, "If I saw this from the student, I would at least have a glimpse that they have that type of EQ and it is a work in progress"? What would I have to show you or what would the student have to show you?

Amir - I think there are measurements of emotional intelligence as well. I am not sure if there are certificates or tests for that. Based on the type of scenarios that you are giving them and the business cases that you are giving them, that is the influence. I think that is what you can get quantified. I think that type of class itself is how you project. Another item I see in my institutions is a portfolio concept, where I am building as I progress through my institution and building that portfolio. That portfolio is going to gain the confidence and presentation to those skills, and with the communication itself, it is going to be even more robust and will be an advantage.

Peter - Some of the students out there go into IT specifically because they do not want to deal with other people, which is somewhat of a misnomer as well, too. I feel some of the reason behind that is they picture they are going to hide in the basement and do not have to talk to anyone while they are working. In reality if you are truly working within the confines of a company, you will have to work with other people.

Internship or apprenticeship (registered or informal trainee opportunities at your organization for students seeking jobs) –

Amir - Internship programs are never the same in all industries. From Walgreens to Union Bank to Kaiser there is no distinct preference.

Peter - Even though a company might have a lot of high level students that are in their third or fourth year of their program, a Cypress College student who might be in the first part of their second year could be accepted? *Amir* - He thinks so.

Kaveh - There would definitely be opportunities for them at SchoolsFirst. I can't say if there are any internships available, but typically there are some in IT or with some of our project management positions. They typically like to do a contract to hire. If somebody is currently pursuing a degree or certificate and they are trying to juggle both, they will bring them on part-time under a contract and then watch their performance as they finish their degree. They typically will be hired on afterwards if they know the student would still like to work there. In the business department, they do the same thing, depending on if somebody is pursuing a degree at a four-year college or at a community college. There are definitely opportunities.

Henry - Kaveh, as a follow-up to what you said regarding your business department, is there a specific company that you guys work with to get those kind of temporary employees hired within that type of roll?

Kaveh - I can't speak to it, since I am not familiar with the HR process. As far as I know, if they are on a contract to hire, it would typically be done through our HR department. If it is just contract work, then that would be done through a third party.

Tim - On my team, I know for a fact that there are no internships in IT. I'm not speaking for corporate headquarters, which I heard has thousands of employees and a huge office. I would think maybe they have some internship opportunities there, but I'm not too positive.

What are the current or projected employment needs of your organization for the next 2-3 years?

Tim - I feel for the hotel industry it is good. I don't think it is going to be very good in regards to hiring a lot of people but I'm speaking for my industry. Before everything happened, the big area for hiring at Marriott was in security. They had just opened a lot of security positions.

Kaveh - We have slowed down quite a bit since Covid-19 started. Prior to this we had actually expanded into northern California, and we were on a growth perspective. I don't know if we are on a hiring freeze. I believe we are kind of staying the course in terms of employment. *Peter Molnar* - Have you had any layoffs? *Kaveh* - No, and our CEO made it very apparent that there were not going to be any layoffs. Luckily, SchoolsFirst is a very conservative credit union, so we don't take on very much risky debt. So we are in a very good position to kind of ride our way through this recession, as we have been able to do it in the past. So there is no reason for us to go through any layoffs.

Amir - As far as Kaiser is concerned, they are still hiring medical staff, nurses, those types of positions. I think there is a slow gauge in IT because we are currently in a mode of all hands on deck. There is no time to really bring on anybody. It is pretty much whoever we have right now, that is it. We are definitely just trying to keep the light on and keep the current status quo, because we are in the real stuff, pretty much in our continuity plan now.

Where do you hire most of your entry-level employees? From 2-year colleges? From 4-year colleges? From Trade schools?

Kaveh - SchoolsFirst is very open in where they get their employees from. I am from Cal State Fullerton. I work with people from Cal State Long Beach, UCI, UCR. There are many locals that work here, and there are a lot of upper management employees that have come from universities outside of California, too. There is no discrimination.

Tim - No, I don't think so because we are worldwide and in every state. I feel like they don't prioritize on who they hire.

Amir - For Northern California, it was unfortunate when our CEP passed. He was actually working on an initiative to try to get out again, get a little more exposure, and develop technology programs within some

institutions at least in Northern California. I think eventually he was going to come down here, but there is no preference at this point.

Suggestions for future courses, certificates -

Amir - I bet if you teach a “Tik Tok” course, you will have full enrollment. As of right now, I don’t see anything new unless you are trying to go with Adobe. Adobe is a whole different suite. You also have computer science students, and probably some of them are very interested in game programming. When I was teaching at the Art Institute, I had students were very good in their artistic area and were learning some basic programming even though that was not their interest area. Those artists are basically the STEAM. It is STEAM not STEM. If you are you trying to grasp those students and their interests, the industry is still there.

Tim - I feel like cloud computing is still big. I feel like everyone is moving everything over to the cloud. Do you offer like AWS and classes like that?

Henry - Yes, we actually do. We just signed our partnership with AWS as the educational Academy last week. This is actually part of our CyberSecurity platform, and we have started working on that curriculum. We are going to be integrating this into some of our existing classes. We currently have our students taking the Cloud Practitioner Certification, which is through AWS for our CyberSecurity program.

Kaveh - It is tough to follow trends because they peak and fall pretty quickly, especially these days. The programs and the classes that you guys have shown through these certificates, I think are great foundational tools to get into the various technologies that are available. As long as the students keep learning C#, C++, and Java because some of these languages are not going away. They are utilized in every aspect from user interfaces to web development to all different applications. So I think as long as you stick with the fundamentals and you show the students where they can be applied to in other technologies, I think that’s very important.

Henry - Kaveh, if I could piggy back on your comment. If we were to have a computer showcase where our students could show their different areas of interest, as a potential employer would you come in and see what we had to offer? *Kaveh* - Yeah, I think I would. If you ever have a showcase like that and you want me to reach out to HR to even have them come out to see what you guys are offering, I could speak with my management team and give it a look see.

Tim - I would, definitely. I report to HR and she’s based out of Chicago so I don’t know if she will be able to check it out. I am part of shared services so we report to a different HR person rather than the local HR person at each hotel. I would definitely be able to check it out and pass the word onto HR when they are hiring.

Henry - I think it is important for us to not only say we are doing the work but also show you we are doing the work. I know one of our faculty members is going to be doing a computer showcase in his advisory meeting from our programming students. He is going to show his advisory panel what it is that his students were able to learn from his class and what the applicability of that knowledge foundation is going to be. Is this something, as a panel, everybody feels is valuable?

Peter - this is something that we should probably bring back to our department for consideration.

ADJOURNMENT

Peter Molnar thanked everyone for attending and contributing to the discussion. The meeting adjourned at 10:54A.

Peter Molnar, CIS Instructor

Henry Hua, Dean of Business & CIS