

**Minutes-Computer Studies Advisory Board**  
**April 16, 2019**

**1. Welcome and Introductions**

Meeting was called to order at 4:35 pm. In attendance: Nan Ho, Miguel Baez, Peter Andrus, Debbie Fields, Mark Tanis, Charles Troup, Harris Kravatz, Gagan Gill, Bill Komanetsky, Vicky Austin, Caryl Shill, Tom Curl, and Tim Berg.

**2. Approval of Prior Meeting Minutes Faculty**

Motion to approve minutes by Nan Ho, seconded by Bill Komanetsky, carried.

**3. Industry Update**

**New Technology**

There was a discussion regarding how all the new technology is affecting the Cloud. Mark mentioned the cloud is getting hit with trying to manage and understand all the emerging technologies. Harris specifically mentioned two newer technologies, REST and Agile. Bill mentioned that Agile has been added to a couple of classes. Harris remarked that the use of Agile is increasing at Oracle; he believes that everyone needs to know this software. Bill mentioned CS 47 which is a capstone class that teaches the student (s) how to start from concept to delivery of products. Gagan asked how do we bring all these different technologies together? Peter suggested using a GIG Hub Repository - Automation Regression testing.

There was discussion regarding the speed at which new technologies are being developed and how the college can keep up with the new software. Harris mentioned another popular software-Slack and asked if any classes were available? Debbie said there were no classes available but teachers could incorporate it. Peter remarked that Slack was easy to use. Vicki remarked that college students need to understand that they must be lifelong learners-college is just the beginning of the process. Peter added that something new is coming out every day. Mark remarked students need to learn, 'how to learn'. He asked the group if anyone was using Trello? Peter answered a little bit.

Nan asked which of these new technologies need to be incorporated into LPC curriculum? Mark answered that understanding Spreadsheet is a basic tool. Charles remarked that he has never used Slack, Trello but does use Spreadsheet. Gagan added that students need to have the ability to learn new things. Peter noted that Platform would be an important software to learn. There was discussion about Platform and etiquette and communication class?? Vicki explained the class. Nan displayed the CIS 43 class. Gagan remarked that students need basic tools. Peter added that a class assignment which includes Trello and Slack would be very helpful for students. Mark remarked that Slack killed Skype.

Nan asked if there was anything that needed to be added to CIS 43?

Recommendations from the board was to add "Collaboration Tools".

Vicki-we use Zoom

Peter- Slack does all that and video

Mark-Webex, Zoom

Charles- we use Skype  
Charles-TS tools

### **Hiring and Training Needs**

Nan asked what job descriptions are the companies trying to fill? Mark said that students need to know the new technologies. Charles remarked they need Firm Well engineers who are well versed in C and C++, and hardware architecture. Additionally, Charles added that an Arduino class was needed. Peter agreed. Charles reaffirmed that Firmware was needed. Debbie remarked that Arduino and Raspberry Pie was going to be added to the LPC Maker Space. Bill shared that students in CS 21 were exposed to Arduino. Debbie added that LPC needs an electronics lab.

### **Internship Opportunities**

Mark and Gagan both have internship opportunities. Gagan shared that they hired fifteen interns last summer of which 9 are LPC students. Some of the interns have stayed on.

Miguel asked about job shadowing and meeting opportunities for students.

### **Emerging Trends**

Tom asked about AI. Bill shared that a new faculty member was being hired. Mark wanted to know about IP 6 and when it was becoming available. Bill remarked that is was too complicated and the address was too long. Harris mention Chatbox. Data Science and cloud computing are the additional trends especially with services like AWS in the marketplace. We discussed LPC's new data metrics CIS certificate, but more scientific curricula is also needed.

From Sue Marlais, LLNL, shared via email

Cloud services – requires new approach to application development. Software developers need to be trained to use tools in cloud offerings to develop applications.

Networking skills are evolving – now need software development skills – focus is software defined networks

Cyber security – focus on behavioral analytics, anomaly detection

## **4. Faculty Report**

### **Curriculum**

Debbie explained the sixteen new degree programs and certificates-81 A, B, C, D and 82 A, B, C

Python 16 credit class—8 week classes starting in spring 2019

Debbie talked about a dual enrollment program that a L.A. high school. Caryl suggested LPC possibly partner with Tri Valley ROP to create a dual enrolment courses. Miguel and Tom were both interested in moving forward with this idea. Debbie will send Miguel and Tom the course information to review.

Debbie told the board about the Data Analytic class. Charles wanted to know what the co-requisites were with math. Debbie said statistics. Charles remarked that statistics and data analytics go hand in hand. Mark asked if it was possible to get a degree without taking statistics? Nan answered, yes. Bill

explained the necessity of taking statistics. Peter remarked that calculus is a weeder class and they don't use calculus. Bill explained why calculus was needed.

***Recommendation from the Advisory Board is that Statistics and Regression is in all Computer Science degrees.***

Debbie explained that certificates do not require general education coursework. Tom asked if it was important that math classes/calculus were transferrable to a 4-year college/university? Debbie answered that many students, with a 4-year college degree, come back to LPC to update their skills and just want/need a certificate. Charles remarked that the required core (30 units) looked good.

CS 21 is transferrable to UC and CSU

### **Enrollment**

Via Class-Web, the board was shown the spring class enrollment numbers.

### **Faculty Hiring**

Full time CS instructor

Part Time Computer information instructors-CIS CNT

Nan encouraged the Advisory Board member to come teach at LPC

### **Special Projects**

Google IT Support Professional Update-80 students participating; 4 certificates completed

## **5. Recommendations from the Board**

Nan asked if there was anything that needed to be added to CIS 43?

a. Recommendations from the board was to add "Collaboration Tools".

b. Recommendation from the Advisory Board is that Statistics and Regression is in all Computer Science degrees.

6. Meeting Adjourned 6:00 pm