

Engineering Technology Advisory Board Meeting

Friday November 13, 2020 4:00 PM – 5:00 PM Video Conference

Minutes:

John Gerrity – Assistant Professor Allan Hancock Community College and Engineering Consultant

John Shamma, P.E. – Metropolitan Water District and GCC Part Time Environmental Technology Instructor

Cecilia Pena- Master's student in Engineering, Cal State LA

Luis Imunoz – Lead Engineer Glenair Aerospace Company and Part Time Instructor at ELAC

Monica Morales P.E. ENV SP– Jacobs, LA YMF President of ASCE Students

Kamy Khashayar – Cal State LA and ELAC instructor

Dana Pugh – Lead of large team at Boeing El Segundo Satellites, antennas, MS USC Astronautical Engineering

Eugene Mahmoud – Engineering Professor, SAC college

Ernie Ariza, P.E. Metropolitan Water District and GCC Part Time Environmental Technology Instructor

Kazuo (Kaz) Takeda - the Director of Operations for SprintRay, a 3D Printing Manufacturing company in LA. We support the digital dentistry industry and looking to understand how to faster a relationship with the college. Kaz Takeda

Feedback:

Monica – agrees changing the title of the AS degree

Mt. SAC just got ENGT approved

John Shamma – HS level to direct students into selecting their program/major.

- Letting people know employment opportunities is not very well advertised. Understanding the program requirements etc.

Monica- many students change majors because they want to explore what they want to do. Wants to come speak to us!

100% agrees with water program, she is flooded with work- LA is going to 100% water reuse by 2035. Another path in terms of operations-operations (ie hyperion water reclamation plan, joint water) a lot more needs for operators. Jacobs looking to outreach to students and hire them. CAL poly SLO has program for Operation degree – students can make \$80k

Dana – Agrees, CC is more populated with students who are unsure about majors. Agrees with Engineering technology. At Boeing, she has team of engineers, quality inspector and operations, manufacturing floor support. Feels that some of her team doesn't have the skills – engineer worked well doing the support/planning roll but is

overqualified. Engr tech is advantage to capture production control, planner, great to understand how engineering works.

Ernie- most students not aware of opportunities that exist in these fields. There is usually a shortage (in water treatment facilities). The risk of not complying water operations is very strong, water operators have very high level of responsibility. Wastewater operator certificate usually 25 units. Some colleges offer associates. Include Instrumentation and control classes. Many students didn't know this field existed. They never envisioned working with water. Many cases, students can take 1 or 2 classes and start their certification to start working. After 5 years they are making 100K / year. Water is a niche program, not well advertised.

Who gives certifications and who gives the jobs? Based on this CC's can position themselves for the position and apply. Print reading identified as needed skill.

Ernie – certification provided by state of California, two step process-taking certain number of classes qualified as specialized classes plus additional classes which would count toward education. 3 hour, multiple choice, 70% to pass exam after taking classes, offered every 3 months (treatment exam or distribution exam). Need operator certificate. Basic understanding of water treatment principles- grade 3 is already supervisor. Math is very specific for this topic- water math is $1/3^{rd}$ of the test

Cecilia- outreach should be started sooner and continue, she changed her major in college because she didn't know about college. She agrees that many of her peers would jump on the opportunity to get the

technology certificate or AS degree. Diversity is at forefront and not aftermath.

Luis Imunoz – how do you throw out the widest net and capture the most, concern about fragmenting. Create more general programs then link students with industry connections. Imunoz' company is not hiring technologist or technician- they are looking for classic engineers and giving them the technologist roles, heavily leaning on their design and analysis roles. Have students engaged and exposed to engineering, if the math/physics gets difficult then steer them to the water technology etc. Keeping them on a path that still allows options- however far they get is still useable. One of the skills we lack is basic lack of understanding print reading.

John Shamma- deficiency for training people for power, sewer as well as water. People have to travel to Santa Clarita or ELAC to get necessary classes. Everyone who gets a job in that field needs a retraining. Glendale is very central to these activities. Class names being specific to program helps very much.

Eugene – Mt. SAC starting program of engineering technology, job of educating people

Kaz- direction of operations at Sprintray- manufactures 3D printers for dentists, leading market for digital dentistry, manufacture their own resin. Worked 22 years at Disney, Need for technicians. Entry level position open right now. Any kind of 3D printing experience, using hand tools, attention to detail cleaning. Very diverse company. Hiring

engineers- Chemical, Manufacturing, Industrial, Reliability and sustainability.

4:00 PM Call to order and Introductions

4:15 PM Engineering Technology Information

Engineering Technology Programs at GCC

3DP-Project

4:30 PM Advisory Discussion, Questions and Feedback

How well does the program prepare students to work in your

company or industry?

Would you hire a student who completes the proposed

program?

What additional or alternative skills would you like to see in

the program?

Next meeting Spring 2021

4:55 PM Adjourn

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