
Advisory Meeting

Engineering CTE first Advisory Meeting

Friday, 05/24/2019

9:00 - 11:30 am

CAI Executive Dining Room

Attendees

Marla Ulinana, Debby Wong, Karineh Abed, Kamyar Khashayar, Roberto Sedano, Kimberly Majors, Tom Casey, Chad Crouchman.

1. Welcome and Introduction by Dean Uliana and Chair Debby Wong

The Advisory Committee members were welcomed by Dean Uliana and Department Chair Debby Wong followed by Introductions. The committee Industry participants were Chad Crouchman a Civil drafting engineer with City of Los Angeles Water and Power; Tom Casey the Chief of drafting operations from Los Angeles Water and Power overseeing drafting groups; Roberto Sedano with City of Los Angeles Water and Power, surveying engineer and Kim Majors of Hawker aerospace firm from Human Resources. Faculty members present were Debby Wong, chair of Math, Computer science and engineering, Karineh Abed, instructor of mathematics.

2. Existing engineering program overview

Karineh Abed talked about the existing engineering AS degree, and engineering courses that are being offered.

3. Certificates and industry professional input

A) Issues with establishing pipeline for engineering programs:

- Kamyar stated that high school students can't come down this pipeline due to heavy math and physics requirements imposed by engineering courses within an AS degree program.
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- ❑ Kamyar stated that high schools are in need of credit courses that are transferable; for ELAC they have 38 courses being offered in high schools.
- ❑ Marla stated that the pipeline is not restricted to high school students but it should encourage the adults coming in to college at any point of time to enter these programs.

B) Industry professionals' input on CTE engineering demand:

- ❑ Tom agreed that high school students will most likely go directly to a 4 year program; he mentioned that Los Angeles Department of Water and Power has tuition reimbursement program. Tom recommended to create courses that meet DWP requirements as certificates, so that the certificates could be directly listed as job requirements. Tom stated that at this point they have to list all necessary courses one by one. He suggested that the recruitment will bring students into the pipeline if the certificates reflect the required courses. Currently the entry level positions require the completion of 12 units in CAD courses, completion of geometry and trigonometry. Tom recommended that LAMC partners with DWP on tech positions, civil drafter plus surveying tech positions. All the education prerequisites are the same for civil, electrical,.. drafting.
- ❑ Chad stated that drafting and surveying aids have higher income than others having an engineering degree.
- ❑ Debby stated that due to AB705 students are directly placed in trigonometry with some hours of remediation. This should help incoming students to enter the engineering programs faster than ever.
- ❑ Marla suggested the course name for our existing CAD courses to be changed to contain the word CAD in the title in order to be consistent with the required courses listed in the job listing for DWP.
- ❑ Kimberly stated that they offer internships for students enrolled in college going for engineering degree. For their technician jobs high school diploma is the only requirement.
- ❑ Roberto stated that land surveying is not well known. They have problems recruiting for surveying. Only three classes are required. Land surveying, Auto Cad and trigonometry are the only requirements.
- ❑ Softwares that are currently used: rivet, autoCad, solidworks
- ❑ Roberto stated that the job opening for surveying entry level position has been open till 2017, there is high demand for surveying technician. Marketing is needed to advertise this position. Outreach recommended.


- ❑ Tom stated they prefer to see someone who has drafting certificate and taken surveying courses as well.
- ❑ Roberto stated that teamwork is essential, people skills, written communication, technical writing are all aspects that employers are looking for. He suggested making the certificate stackable.
- ❑ Marla talked about the funding formula for CTE programs. We need to develop certificates over 16 units since 16 units is financial aid eligible for students. CTE funding formula has changed and it's now based on completion and landing jobs.
- ❑ Roberto stated that city has internships for high schools both unpaid and paid. City also offer student worker programs.
- ❑ Chad recommended looking at the pierce college certificate program model.
- ❑ Kimberly stated that component and disassembly department recruits technicians only with high school diploma.

4. Equipment and Supply

- ❑ Equipment and Supply for land surveying: Roberto stated that finding a professor to teach surveying could be a challenge. However this was cleared by Marla that the teaching requirements differ for the CTE programs, opening door for more qualified candidates to apply. As far as the surveying equipment Roberto stated that City donates their old equipment to schools. Total stations (need at least 2) . City can visit the school twice a semester to show students the current technology. For drafting the recommended softwares were: CAD Software, windows (word, excel), technical writing, Bentley microstation or AutoCad (microstation is more popular), autoCad student free version.

5. Closing Statements and Items from the floor

- ❑ Tom stated that certificates could be a building block for civil engineerings. Outreach to young women is strongly recommended.
- ❑ Debby talked about hiring instructors from the Industry. In a CTE program instructors could have BA or PELS. City can recommend instructors to LAMC.
- ❑ Roberto stated that CA land surveyor association has a list of qualified individuals for instructors.

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- ❑ Debby stated that to develop a curriculum it will generally take 6 months. We will start submitting the paper work in September. Courses will be offered in Fall 2020.
 - ❑ Debby mentioned about creating a makerspace on campus and asked the industry professionals about their take on this.
 - ❑ Kamyar stated that MESA program, which is state funded, could help bringing students into the pipeline.