

**Welding Technology Advisory Committee Meeting**  
**November 20, 2017 6:00-7:30 p.m.**  
**UCEN-223**

**Commenced:** 6:12

**Adjourned:** 7:35

**Attendees:** Keri Aaver (COC), Nick Albert (City of Los Angeles), Tim Baber (COC), Zaid Bakoo (Hart School District), Sue Buckley (Hart School District), Eduardo Garcia (Career Ladders Project), Harriet Happel (COC), Darrol Houser (JPL), Mark Kosek (Hart School District), Mariana Ludmer (AWS Los Angeles), Ron McFarland (COC), Sergio Montiel (Lincoln Electric), George Rolla (AWS Los Angeles), Sherry Shojaei (Career Ladders Project), David Thrasher (COC), Nathan Verbickas (City of Los Angeles)

**Welcome/Introductions – All**

**Approval to previous meeting minutes - Approved**

**Previous Business**

- **Enrollments**  
Three sections were offered during the summer session – Weld 101A- Introduction to Shielded Metal Arc Welding; Weld 101B- Intermediate Shielded Metal Arc Welding; Weld 101C- Advanced Shielded Metal Arc Welding. Weld 132 – Blueprint Reading for Welders and Fabricators was also offered. We found another instructor to give us the ability to shorten class duration into 5-8 weeks and not 16. Want to sequence in morning then afternoon or evening so students can have the opportunity to attend the classes so we can get these students completed in 2 yrs.
- **Labor Market Trends Outreach**
- **COC Welding Roadshow event** was held on April 21, 2017 at Canyon High with a turnout of over 100 students. There were three station that included gas tungsten arc & welding, gas metal arc welding and virtual reality welding. There was also a classroom presentation on careers in welding. This event received heavy media attention. There are more funds available through the Hart school District to assist in funding future events at local junior and high schools.
- **Apprenticeships**  
The idea of development of an aerospace welder apprenticeship is still under consideration. The CAMAC standardized apprenticeship models for welding do not directly align for aerospace welding so a complete new model would have to be constructed and the necessary state and federal approvals would be needed. RAH Industries is invested in helping COC out with this.
- **Budget**  
New equipment under the \$330K allocated to welding were purchased and delivered. This included (12) Lincoln Electric S350 Advanced Welding Packages and (10) Lincoln Electric Aspect 375's. The ten Aspect 375's have been installed and are being used under normal instruction. The (12) S350 Advanced Welding Packages are schedule for installation for spring 2018. There is software integrated into each machine CheckPoint (obtains performance information) Weldscore (determines quality of welding)

**New Business**

- FA 2017 – (17) sections offered – no course cancellations.
- WELD-112A Introduction to Gas Tungsten Arc Welding, WELD-113A, Introduction to Pipe Welding. New certification of specialization with a direction in aerospace because of Capstone class and offered in 3 classes instead of 2.
- WELD-113B Pipe layout and Fabrication were offered this semester and filled to full enrollment capacities. Fabrication were offered this semester and filled to full enrollment capacities.
- Winter 2018 - Weld 092 – Introduction to Metal Fabrication and Weld 132 – Blueprint Reading for Welders and Fabricators are being offered. Offering Monday – Friday 5:00-9:00 p.m. for 5-weeks.
- Spring 2018 – Adding an additional evening section of Weld 101A – Introduction to Shielded Metal Arc Welding; Weld 101B – Intermediate Shielded Metal Arc Welding’ and Weld 101C – Advanced Shielded Metal Arc Welding.

## Curriculum

- Weld 120 – Industrial Welding I; Weld 122 – Industrial Welding II; Weld 124 – Industrial Welding III will be archived as of the end of spring 2018 semester.
- Revisions of Weld 092 – Introduction to Metal Fabrication; Weld 093 – Intermediate Metal Fabrication; Weld 093- Advanced Metal Fabrication are planned to integrate CNC press brake, CNC Plasma, and FMA Fundamentals of Metal Fabrication Certification content into the official course curriculum. We will integrate types of metallurgy into the 094 as an assessment tool.
- Weld 096 - we want to offer as a lab based noncredit class.
- Development on Weld 111A – Introduction to Semiautomatic Welding; Weld 111B – Intermediate Semiautomatic Welding; Welding 111C – Advanced Semiautomatic Welding is scheduled to be completed by spring 2018.
- 5-year revisions are due December 2017 for Weld 114A – Introduction to Robotic Welding Automation; Weld 114B – Intermediate Robotic Welding Automation; Weld114C – Advanced Robotic Welding Automation
- A meeting with our curriculum committee chair and academic affairs vice president took place this semester to discuss the idea of the development to three new non-credit courses for LADBS welder certification preparation courses (SMAW and FCAW). Need to hear from our advisory board on this subject.
- Work on the Faculty Driven Regional Group (DDRG) is continuing to develop Core Industry Descriptors (CIDs’) for the state of California. Working to have (5) CID’s completed by spring 2018. Working to align CA welding curriculum with the AWS SENSE E2.0 Entry Level Welder specification.

## Marketing/Outreach

- Nuts, Bolts, and Thingamjigs Summer Camp was offered and 18 campers participated. Campers built a collapsible shovel, working with metal fabrication equipment, welded using multiple welding processes and welded with the virtual welder. A proposal for next NBT has been submitted. The Makerspace grant and CACT will be funding this event next year.
- Program website is currently being revised to align with college formatting across programs. Perhaps we could add a link from the Hart School District website with a pathway to the welding program here at COC.

- Welding participated in the recent Manufacturing Day event with VR welding demonstrations and career exploration materials being offered to students in attendance. Industry attended on campus this year.
- College2Careers event to be held on January 27<sup>th</sup> this year. Waiting to hear back from faculty and staff before committing welding for participating in this event.
- Brochures and videos are being created through the approved funding sources.

## **Grants**

- AMPT grant officially closed as of 7/21/17. All final reporting has been completed.
- 2017/2018 Perkins funded projects include purchasing CEI Welding WPS software, training for using new software for faculty, professional development for faculty, and curriculum development (Weld 11A, Weld 111B, and Weld 111C).
- Application for the 2017 AWS Workforce Grant (upgrading existing Torchmate CNC plasma cutting tables to Accumove 3 systems) was not approved. Asking AWS for feedback regarding the “ranking” of the proposal.
- Submitting for Prop 39 funding for funding to upgrading existing Torchmate CNC cutting. Upgrading (2) Torchmate tables with Accumove 3 systems, faculty training, and curriculum development funding for revising Weld 092, 093, and 094 curriculums to include CNC plasma cutting content.
- Submitting proposal for College Technology Funds for purchasing (1) Wiki-Scan Handheld Welding Quality Management system (this purchase has been approved by the committee). If funded, unit will used to substantiate welder qualification testing results. The systems will also be used for assessments of students’ welded projects under the SENSE program. (See attachments)

## **CCPT Grant**

- Harriet, we are bringing on a pathway at Canyon High School, it is no cost to the student, and offers credit bearing hours. Once certified they become employable at a living wage and then go to college to receive industry recognized credentials, certification or degree. We are at the beginning of this. Our pathway aligns with SENSE program.
- Sue, Canyon High School has an architect and project manager meeting on 11-30-17 to discuss their welding program. There will be more emphasis on welding during the college2career day in January. Mariana will be attending College2Career day to inspire women.

## **Announcements**

- COC conducted its first Lincoln Electric Basic Robots training on August 15-18<sup>th</sup>. Four participants in attendance -two faculty from AVC and two from Hass Automation. More trainings to be offered next year.
- College of the Canyons was identified by Lincoln Electric as the first level 4 LEEPS (Lincoln Electric Education Partner School) in the United States. Benefits to the college are many.
- Two BSA Welding Merit Badge events were held for fall (four total for 2017). BSA has expressed strong interest in COC becoming a BSA Explorer Post for Welding.
- College of the Canyons recently became part of the Section 21 AWS Los Angeles/Inland Empire. Looking to establish an AWS student chapter and work closely with the section to help benefit our students and local industries.
- Certified Robotic Arc Welding (CRAW) - College of the Canyon has been approved to operate as one of the only five AWS CRAW Testing Centers in the United States. There is addition work necessary to add

information to the current welding website to inform potential test participants. Tim anticipates being ready to begin testing by FA 2018.

- Tim Baber was recently elected to serve as vice chairman of the AWS Education Committee. Will be working with chairman and the committee to assist AWS addressing the current issues regarding the SENSE program.
- David Thrasher recently passed his CWI and will now help support welder qualification testing efforts within the program.

### **Open Discussion**

- Harriet, we are expanding our manufacturing program, this can be an area where we can explore offering design theory, VR, design programs, 3D, 4D software, and solid works. This could be several years in the making. Guided pathways, COC is 1 of 20 in a pilot project. Each semester students build on skills towards specialization.
- We are addressing employability skills in Doing What Matters (DWM) funding by assisting students in building LinkedIn profiles and [lynda.com](http://lynda.com). We are offering 3 noncredit classes where students earn a certificate. These will be 5 hour classes as a pre requisite to the noncredit classes to ensure they possess the skills to be successful in the class. Committees will we have enough faculty to run. We have been offering an open lab class at a low fee. Students from other colleges are coming here to attend our open lab class that are offered Tuesday evenings and Saturday mornings.
- FDRG (Faculty Driven Regional Group) - Tim is chairing a committee created by the CA Academic Senate to create 9 CID's (Course Industry Descriptors) to that make up the recommended course requirement for an associate's degree at a California Community Colleges. AWS CID program with core courses, Tim chairs the AWS Education Committee, has had few meetings. Preparing proposals to get feedback to get CIDs in place, committee will review these. This allows students to transfer amongst colleges & creates a standard across the state. There are 5 proposals being submitted.
- Mariana - many students want to learn welding & get in the trade but don't want to do the GE classes. New companies popping up and they learn just hands on, get certified and go to work.
- Lincoln Electric Education Partner Schools (LEEPS) has discussed bringing in faculty from high schools and the community colleges, offering discounts on the educational portal. There are considering offering an event held here or Santa Fe Springs to be held in June 2018.

### **Action Items**

- George Rollas can put us in touch with Robert Parks from LA Unified School District,