



CFT Advisory Committee Meeting

Meeting Minutes

May 2, 2022 1430-1530

Attendees:

Jennifer Anderson	Chairman/Lead CFT Instructor
Adria Torrez	Dir. National Initiatives, AWFS
Adam Kessler	Mgr of Education; Assn of Woodworking & Furniture Suppliers (AWFS)
Reuben Foat	Dept Chair - Wood Manufacturing - Cerritos College
Patrick Lorenz	CFT TA; background in CNC manufacturing & Mgmt
Georg Kast	CFT Instructional Support Assistant
Steve Spooner	Spooner Cabinets (absent)
Chris Geldert	San Marcos High School (absent)

I. **Welcome Overview**

Jennifer Anderson kicked off the meeting stating the purpose as a discussion with local industry professionals engaged in wood manufacturing industry along with secondary school and college faculty representatives. The meeting was held remotely over ZOOM. The discussion is focused on the current status of the CFT Program and the woodworking industry to solicit recommendations for the Program to better serve our students and provide them with opportunities to earn income in the woodworking industry. Introductions were made all around.

II. **CFT Program Overview and Update**

Jennifer Anderson reviewed the highlights and issues in the college and the CFT program including the following topics:

- The CFT Program scope is significantly reduced from its zenith of about 10 years ago. Course offerings continue to be constrained; however, classes will be fully face-to-face beginning in Fall. The existing limitation of 16 vs. 24 students in a class will remain in place until Spring 2023.

- She noted additional news regarding Palomar administration. The College has a new President and the CTEE department has a new Dean and both are very supportive of the CFT program.

- Jennifer also noted that the CFT program has a new full-time faculty member beginning in Fall. The new instructor comes to the program with a background in cabinetmaking and Advanced Manufacturing to shore up that part of the Program. Digital Fabrication remains the primary focus area for the Program.

- Jennifer also indicate that she will be absent for the 22/23 school year as she will be on a sabbatical from the College.

III. CFT Equipment and Facilities Update

There was a brief review of the status of the facilities and equipment in the CFT operations. Topics included:

- Overall the state of equipment in the CFT labs is good, however some of the equipment is showing its age. Planers, belt sander and lathes, in particular, are requiring frequent repairs and will need capital funds for replacement. Recent additions include a 15" planer and a 4th axis for the Laguna CNC machine.

- The equipment supporting the Urban Lumber operation need repair and the lack of a structure to house them preclude their full utilization and contribute to ongoing degradation.

- The Program has been able to augment tools available for student use by purchasing additional tool sets for the Luthier and hand tool classes.

- The Program now has good CNC and digital equipment; however, they are underutilized and not integrated into existing curriculum.

IV. Workplace Trends, Tech Stds and Needs - Discussion

- Rueben presented the notion that students need an easy gateway into the realm of digital fabrication and at Cerritos, they use Shaper Origin Hand Held CNC routers to introduce students to automation and digital fabrication. Students use these machines to embellish work done in the more traditional woodworking classes by routing designs into panels or to inlay some artwork. There was consensus by the committee members that this is a winning approach.

- Adam suggested other gateway tools that could be used to introduce students to industrial equipment. These include Rapid Assembly systems including Lamello P2 Zeta, Festool knock down connectors and the 'Lockdowel' system (a more CNC based system). There was a discussion and consensus regarding the merits of adding a class as an "Introduction to Production Manufacturing" that should include 'Gateway machines', Rapid Assembly techniques and field trips. Pat reminded the committee that Taylor guitar has offered to host the students of the college to see their production facilities. They use HAAS CNC machines like the machine we have. A 4th axis for this machine would be a useful addition as well.

- Outreach and collaboration with other places of learning was discussed. Adria indicated that the current Society of Wood Manufactures (SWM) chapter for Southern California was too large and that perhaps a more local San Diego Chapter would fill a void where schools and industry can come together to help each other so that there is a workforce to help sustain the industry here.
- CNC manufacturing skills are transferrable to other industries including metal and plastic fabrication. This coupled with the CFT approach using project-based learning can provide students significant opportunities in a variety of fields. Starting with CFT 100 , Woodworking Fundamentals, students learn how to plan and complete a project on time while also developing proficiency in soft skills in addition to woodworking skills.

V. **Recommendations**

The purpose of this segment was to review the discussions and to develop recommendations for the Palomar College CFT Program.

1. **Digital Fabrication** - Continue to integrate CAD/CAM tools and incorporate them as quickly as possible into the curriculum for all appropriate classes. Consider making ‘pre-engineered’ components available to students to use in existing classes and incorporate other gateway technologies to get students interested/excited about CNC technology and production woodworking. Continue to move forward in creating a separate certification/degree program emphasizing Computer Aided Manufacturing. A 4th axis to the HAAS CNC machines will provide students additional latitude in developing products beyond flatwork.
2. **Curriculum** – Digital Fabrication methods should be integrated into all appropriate classes to be taught alongside traditional methods. This integration should also include aspects of Urban Lumber so students understand the breadth of the woodworking industry.
3. **Curriculum** – Consider adding a class as an “Introduction to Production Manufacturing” that should include ‘Gateway machines’, Rapid Assembly techniques and field trips.
4. **Equipment Replacement** – Continue to replace equipment as it ages or becomes non-functional. This should include hand tools in addition to floor standing equipment. Consider adding Gateway Machines like Shaper Origin and Rapid Assembly tooling.