



CFT Advisory Committee Meeting

Meeting Minutes

February 27, 2019 1600-1800

Attendees:

Jon Stone	Chairman/Lead CFT Instructor
Jennifer Anderson	CFT Permanent Faculty
Adam Kessler	AWFS Manager of Education
Reuben Foat	Cerritos College Wood Mfg
Steve Spooner	Spooner Cabinetry
Paul Singer	Dresner Cabinetry
Chris Geldart	San Marcos High School
Dan Tresko	Tresko Custom Designs
Brenden Mathews	Foothill Cabinet works/Adjunct Faculty
Jerry Beaudry	CFT Adjunct Faculty (CNC)
Georg Kast	Instructional Support Assistant

I. **Welcome Overview**

Jack Stone kicked off the meeting stating the purpose as a discussion with local industry personnel engaged in wood manufacturing industry along with secondary school and college faculty representatives. The discussion is focused on the current status of the CFT Program and to solicit recommendations for program to better serve our students and provide them with opportunities to earn income in the woodworking industry. Introductions were made.

II. **CFT Program Overview and Update**

Jack Stone reviewed the highlights and issues in the program including the following topics:

- College administration has reduced the size of the CFT Program, but Jack indicated the Program and classroom offering seem to have stabilized. . While ongoing reductions in the number and range of classes being offered is making it increasingly difficult for students to complete Certification/Degrees in 2 years, Jack indicated the introduction of several 'Meta certificates'. One of the new Meta Certificates is expected to be in the CNC Manufacturing discipline.

- 8 Degree/Certificate programs available in the CFT program; Veneering Certificate will be dropped. The completion rate for Certificates and Associate Degrees continues to remain higher than the school average. Cerritos College has

had success issuing certificates based on the completion of required courses, no student petition is required.

- Faculty positions remain predominantly adjunct with only two full time permanent teaching position and one classified position to support operations. Jack indicate his plan to retire at the end of this semester. He indicated that the Administration may hire a temporary Full Time instructor until a permanent replacement is hired. External committee members considered this ratio inadequate to ensure desired program outcomes and a stable workforce.

Jack also elaborated on the learning methodology used in the Palomar College CFT Program as “Product based” manufacturing technology. This methodology teaches students to work a product from Design to Planning to Execution through a prototyping process before a final product is achieved. In addition, students learn leadership and people skills to provide them an entrepreneurial and client interface focus.

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 satisfaction continues with the operation and maintenance of the NEW CFT 4' x 8' panel processing machine. This machine has been integrated into the cabinet making curriculum and is also used in the Machine Tool Joinery class (CFT 110/111).

- As a result of Perkins Grant funding, the school now has 4 CNC Routers (NEW- 4'x8', HAAS VF3, Laguna 2'x3' ATC and a Laguna 2'x3' IP Pro) In addition, a Trotec 120W Laser has been added to the inventory. A key point is that only the NEW CNC has been incorporated into classroom use. This machine is currently used in the Cabinet Making class as well as the Tables and Chairs class. These machines represent a phased approach to giving students a path for moving from less complex (Trotec Laser & Laguna IQ PRO) to more complex CNC machines (Haas and NEW) as recommended in previous Advisory Committee meetings.

- **It was noted however that CFT still did not have its own computer lab for students.** This continues to be problematic in that the software used in the woodworking classes is licensed to Palomar College and is prohibitively expensive. As a result, students are limited to using College PCs to do their work. As the computer labs on campus are used by other departments, students are limited to the 3 PC in the CFT Library. **It was noted that both San Marcos High School and Cerritos College wood manufacturing departments had dedicated PCs for their students along with planned refresh of the equipment every 5 years!** Jobs in the wood manufacturing industry are now closely coupled with technology and students without skill in CAD/CAM design software are not employable.

IV. Curriculum Rework

Changes in classes offered in the programs are being reviewed and updated. Jack discussed current activities associated with revising current curricula to integrate CAD software tools and CNC machining. Other educators on the Committee indicated the best results have been achieved when students can both design and cut their designs in the same class rather than having separate design and construction classes.

V. Workplace Trends

Industry representatives commented that the need for qualified workers capable of designing and operating computer aided manufacturing software and hardware continue to provide excellent, conventional job opportunities. The highest paying jobs in the industry are in Designing (\$35-40/hr), Project Management (\$50/hr) and in installation (\$30-45/hr). Beginning CAD workers can expect (\$20-25/hr). Individuals to fill these positions are currently in high demand. Industry groups are working to attract younger workers into the industry and AFWS has been particularly active in this.

The committee members also indicated the additional need to train older students that are working to have a second or third, part time career. The comment was made that there are many hundreds of small businesses in San Diego County doing woodworking jobs. This is part of the 'Gig Economy' and Palomar College can play a role in expanding this aspect of the workforce. Cerritos College has found that offering Saturday class attracts this kind of student, and summer classes provide another option for full time students in other disciplines.

VI. Discussion

The purpose of this segment was to discuss the previous information and to develop recommendations for the Palomar College CFT Program.

From Workplace trends, the conversation quickly focused on ways to enhance employment opportunities for CFT graduates. Since graduates from the High School wood manufacturing classes are getting entry level jobs in the industry, Palomar College should emphasize in depth learning of the design software. This will allow college graduates to compete for the higher paying positions

Committee members reiterated the need to get dedicated PCs for teaching the CFT oriented software to students. Cerritos College and San Marcos High School each have 25 PCs dedicated to computer Aided Manufacturing program in the woodshop.

While considerable discussion revolved around which hardware and which software would be best suited for the Palomar CFT Program, it was agreed by all that these aspects of the industry have changed significantly over the past several years and the continued change into the future would continue. Committee members agreed

that **the best way to learn the tools and skills was a phased approach through a progression of complexity.** It is important to allow students to begin with simple designs and tools and to progress to more complicated designs and more complex equipment.

VII. Recommendations

1. Continue to press for enough computers dedicated to CFT CNC software applications for a full classroom. These devices are essential for students to be able to establish the level of expertise necessary to be competitive for industry positions.

2. Accelerate work to integrate additional CAD/CAM tools and incorporate them as quickly as possible into the curriculum for all appropriate classes. Software tools should be kept to a minimum so that students can establish a higher level of expertise over the range of their coursework. 3 dimensional design as well as 2 dimensional design should be integrated into the curriculum. Software options discussed for the recommended equipment included Corel Draw, SolidWorks, Aspire/VCarve and Fusion 360.

3. Move forward in creating a separate certification/degree program emphasizing Computer Aided Manufacturing. Cerritos College has a successful 21 unit CNC Woodworking certification program.

4. The permanent faculty on the CFT staff desperately need to be increased. This will allow the resources necessary to make the necessary changes to the program and curriculum as well as to develop strategies for developing contacts with local employers. Industry employers need to become familiar with the Palomar College CFT program and our students. One suggestion was to have "Meet the Employer" events here at the school and also to participate in Manufacturing Day activities.

5. Consider offering Saturday classes to attract students currently working in other jobs. This and Summer classes will also attract students in other programs who have conflicts with other subjects during the week.

6. Investigate if the college can somehow track and automatically reward certificates when students complete the classes. This would earn the school more money, program and college wide.