

**PROGRAM APPROVAL APPLICATION**  
**NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED**  
**(This application may not exceed 3 pages)**

**Fill In Form**

CNC Woodworking

Proposed Program Title

Cerritos College

College

Cerritos College

District

Fall 2015

Projected Program Start Date

Nick Real

Voting Member

Technology Division Dean

Title

562-860-2451 x2904

Phone Number

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E-mail Address

**Goal(s) of Program (Check all that apply):**

Career Technical Education (CTE)

Transfer

Other

**Type of Program (Check all that apply):**

A.S. Degree

A.A. Degree

Certificate of Achievement:

18+ semester (or 27+ quarter) units

12-18 semester (or 18-27 quarter) units

**Reason for Approval Request: (Check One)**

New Program

Substantial Change

Locally Approved

**Program Information**

Recommended Taxonomy of Program (TOP) Code 0952.50

Units for Major-Degree 60

Total Units for Degree 60

Required Units-Certificate 22

**Written Form**

1. Insert the description of the program as it will appear in the catalog.

The CNC Woodworking program option prepares students for entry level employment in the woodworking industry, including cabinetmaking, furniture-making, sign-making, and related fields. Students learn how to use leading CAD/CAM and cabinet design software (Alphacam and Cabinet Vision) to program and operate CNC equipment including the nested base router and beam saw. Graduates are employed as CNC programmers and CNC machine operators. Computer skills, spatial intelligence, cognitive ability, and eye-hand coordination are recommended for those entering the program.

2. Provide a brief rationale for the program.

CNC equipment has become almost standard equipment in medium and large cabinet shops and the woodworking industry in general. Small shops are also adding it to their arsenal. Despite this, there are little or

no opportunities for instruction in the use of the equipment in the LA area. Software and hardware manufacturers provide training, but the training is typically limited and is not always available locally. Several local colleges have cabinetmaking programs, but none offer CNC programming instruction for woodworking. The WMT CNC Woodworking program option would help provide this much needed instruction. As noted below in Section 6, the WMT Advisory Committee strongly recommends the new program option.

- List all courses required for program completion, including core requirements, restricted electives and prerequisites.

| Courses           | Course No. | Course Title   | Units |
|-------------------|------------|--|-------|
| Core Requirements | WMT 151    | Introduction to Faceframe Cabinetmaking                          | 4     |
|                   | WMT 181    | Introduction to Computer Operations for Cabinetmaking and Design | 2.5   |
|                   | WMT 185    | Alphacam for CNC Woodworking                                     | 3     |
|                   | WMT 186    | CNC Router for Woodworking                                       | 3     |
|                   | WMT 281    | Advanced Computer Operations for Cabinetmaking and Design        | 2.5   |
|                   | WMT 285    | Intermediate Alphacam for CNC Woodworking                        | 3     |
|                   | WMT 286    | Intermediate CNC Router for Woodworking                          | 3     |

- Summarize the Labor Market Information and employment outlook (including citation of the source of the data) for students exiting the program.

EMSI data predicts 80 annual job openings for cabinetmakers and bench carpenters (SOC51-7011) and 79 for other related occupations annually through 2016 (SOC Codes 51-7021, 51-7041, 51-7042, and 51-7099). These numbers do not reflect the rising demand of existing shops for CNC machines and processes into their workflow and the subsequent demand for CNC instruction for existing employees. Note that CNC programmers/operators are not specifically broken out in the EMSI data in the 51-7XXX section.

- List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (Push Enter after each entry to begin a new line)

| College | Program | Who you Contacted | Outcome of Contact |
|---------|---------|-------------------|--------------------|
| None    |         |                   |                    |

Note that only two other colleges in the region, Orange Coast College and El Camino College, currently offer woodworking programs. LA Trade Tech, Fullerton College, and Long Beach City College have all closed their cabinetmaking programs in the last few years. None of those that currently offering cabinetmaking courses have any courses in CNC woodworking (per their most recent course catalogs).

6. Include any other information you would like to share.

From the meeting minutes of the April 2014 WMT Advisory Committee meeting:

“Committee members Jay Andrews, Andy Edward, and John Paine pointed out how important the new [CNC] certificate is. Many woodworking shops are currently on the fence about adopting CNC technology which has already been widely adopted in other manufacturing environments. Major changes in the upcoming years will see new opportunities in CNC operations. There will be some new jobs, but in most cases, the job skills required of current employees will be changing. Shops that don’t transition to CNC processes will close; those that do will need trained CNC employees. All agreed that the CNC program option at Cerritos WMT should focus on providing CNC skills to new employees and on retraining existing employees in the new technologies. “...In summation the committee agreed unanimously that even though job growth projections are low in California, the proposed certificate and program at Cerritos are essential to move existing LA-area manufacturing into the future, and that employers that don’t adopt these technologies will cease to exist.”