

Program Research & Recommendation

New Program Proposal Form

New Program Title:	Certificate of Completion (Noncredit) in Manufacturing Fundamentals
Initiator:	Kelly Womack (NC development by John Dahlgren)
First Semester Intended to Offer:	Fall 2027

Type of Program

Use AS for any Science, Technology, Engineering, or Mathematics (STEM) field and for all CTE programs. Use AA for all others.

- ☐ AA-T/AS-T
- ☐ AA/AS (18 units minimum w/o GE)
Vocational programs must be approved by NFN
- ☐ CA-Certificate of Achievement (16 units minimum)
Vocational programs must be approved by NFN
Non-vocational programs are not eligible for Financial Aid and will not be shown in CCC Apply, CAP tool, or Degree Planner
- ☐ CA-Certificate of Achievement (8 units minimum)
Only needed if required on a student's official transcript; All others use Certificate
Vocational programs must be approved by NFN
Non-vocational programs are not eligible for Financial Aid and will not be shown in CCC Apply, CAP tool, or Degree Planner
- ☐ Certificate – Certificate in... (15.5 units maximum)
Not chaptered, not FA eligible, will not be shown in CCC Apply or student's official transcript
Non-vocational programs will not show in CAP tool or Degree Planner
- ☐ Noncredit Certificate of Completion (*Leads to job; minimum 2 courses*)
- ☒ Noncredit Certificate of Competency (*Bridges to credit coursework; minimum 2 courses*)

Program Codes

TOP Code:	0956.00
CIP Code:	15.0613
What COI will this program be in?:	Industrial Technologies Programs, STEM

Program Description:

The **Manufacturing Fundamentals noncredit program** provides an entry-level pathway that prepares students for transition into credit coursework leading to an associate degree and potential transfer to baccalaureate programs in mechanical, mechatronic engineering or advanced manufacturing or related fields. The program introduces industrial safety, discrete CNC and related manufacturing concepts, concepts in manufacturing methods, process concepts including industrial mechanical, electrical, pneumatic and hydraulic based processes, engineering graphics while building academic readiness and career awareness. This noncredit pathway supports students seeking accessible preparation for continued education and advancement within industrial automation, drafting and CAD technology or manufacturing career and transfer pathways.

Program Courses:

Course No.	Title	Units
ITEC-365	ITEC 65 - Introduction to Process Technologies	0
MFG-310	Introduction to Manufacturing Equipment (CSUC AMAR-160)	0
MFG-320	Manufacturing Equipment (CSUC AMAR-260)	0
ENGR-314	NEW-Intro to Design and Automation (CSUC MECH/MECA-140)	0
DFT-302	Engineering Graphics I (CSUC MECH 100/100L)	0
DFT-308	Engineering Graphics II (CSUC MECH 200)	0

How does the program align with the College Mission Statement, District Educational Plan, and Strategic Plan?

The **Certificate of Completion (Noncredit) in Manufacturing Fundamentals** is appropriate to the California Community College mission of providing the first two years of a baccalaureate degree by offering foundational academic and technical preparation that supports student exploration, readiness, and transition into credit-based and degree-applicable coursework.

While the program is workforce-focused, it introduces students to college-level expectations, structured learning, and discipline-specific knowledge that aligns with lower-division engineering and manufacturing technologies, and applied science pathways. Students gain essential skills in problem solving, applied mathematics, technical terminology, safety, and industrial principles that are relevant to continued study in credit certificate, associate degree, or transfer-aligned programs.

As a noncredit entry point, the program supports the community college mission by increasing access for students who may lack prior college experience or academic readiness. By providing a low-barrier pathway into postsecondary education, the program encourages persistence and advancement into credit-bearing coursework that can apply toward associate degrees or articulated baccalaureate pathways where applicable.

In this way, the Manufacturing Fundamentals noncredit certificate complements the community college's role in lower-division education by serving as a bridge to the first two years of college-level technical and academic study, while simultaneously helping students clarify career and educational goals within manufacturing and related fields.

Explain how the program is appropriate to the Community College mission of providing the first two years of a baccalaureate degree?

A **Manufacturing Fundamentals Noncredit Certificate of Completion** program directly supports the mission of Butte College by expanding access, advancing workforce readiness, and promoting equitable student success.

As a noncredit offering, the program removes barriers through low- or no-cost enrollment, flexible scheduling, and open access—meeting students where they are in a rural service area. It provides high-quality, industry-aligned training in foundational manufacturing skills, preparing students for immediate employment while building pathways into credit programs, certificates, and associate degrees.

The program also advances equity by serving diverse and historically underserved populations, including first-generation and Hispanic students, through accessible and supportive instruction.

By strengthening the local workforce pipeline in both Butte and Glenn Counties, the program contributes to regional economic development while reinforcing Butte College's role as a student-ready institution committed to opportunity, inclusion, and community impact.

While the primary purpose is workforce entry, the program supports the "first two years" mission in two ways:

1. **On-ramp to credit pathways**

Noncredit programming increases access for adult learners and displaced workers who may later transition into credit certificates/degrees in related areas (e.g., Industrial Technology, Manufacturing, Engineering Support, or other technology pathways). This "stackable" structure supports degree momentum.

2. **Foundational academic and career readiness**

A well-designed noncredit CTE sequence can reinforce foundational competencies (technical math, technical literacy, documentation practices, safety, employability skills) that are directly supportive of later credit coursework and degree completion.

This is consistent with Butte College's stated mission of supporting both **career and transfer pathways** through accessible education and workforce training as well as transfer to university preparation.

How does the proposal demonstrate need for the program?

Need is demonstrated through a **triangulation** model expected for CTE:

- **Labor Market Information (LMI)** from the North Far North Centers of Excellence (regional demand, projected openings, wages, and occupational need)
- **Industry advisory committee minutes** documenting employer validation, hiring needs, and/or requested competencies
- **Regulatory/industry conditions** that require trained individuals and verified competencies for safe installation work

Together, these sources provide both **quantitative** (LMI) and **qualitative** (industry communications) evidence that the program addresses a documented workforce gap.

Annual Completers: How many students do you anticipate completing this program each year?

Projected annual completers: 8-10 students per year (1 cohort of ~8-10 completers).

- A cohort size of 8-10 is realistic for safe lab instruction, equipment access, and faculty workload in a hands-on construction technology program.
- A single cohort per year supports steady throughput while balancing constrained lab/lecture space needs.

What are the impacts on existing programs (enrollment, staffing, section offerings)?

Enrollment impacts

- Positive impact through **new-to-college** and returning adult learners who may not be ready for credit entry.
- Potential feeder effect into existing credit programs in Industrial Technology and related areas.

Staffing impacts

- Requires **1 new full-time faculty** for core noncredit program delivery and coordination.
- Continued use of **Associate Faculty** for ITEC-65 courses reduces disruption to existing staffing patterns.

Section offerings

- Some scheduling displacement risk due to the need for lecture and lab space; however, with identified alternative lecture buildings (WM/LRC/MC), impacts can be mitigated through coordinated scheduling and block planning.

Enter the number of new faculty positions, both part- and full-time. If existing faculty are sufficient, enter zero (0)

- **Full-time faculty positions (new): 0**
- **Part-time/Associate faculty positions (new): 1** (continuing current Associate Faculty utilization for ITEC-65)

Minimum/preferred qualifications strengthen program quality:

- Potential NCCER (National Association of Construction Education and Research) registration
- Trade-supported construction management pathways leading to baccalaureate degree
- Longterm applied effort to a construction management pathway and transfer

Is there sufficiency of institutional resources to support the long-term vitality of the program?

Yes—with stated conditions addressed.

Sufficiency is supported by:

- **Recurring operating budget** identified: **\$20,000 annually** for consumables/small tools
- **Capital equipment covered by Catalyst grant funds**, reducing long-term General Fund capital burden (<https://www.labor.ca.gov/jobs-first-catalyst-phase-awardees/>)
- Clear identification of lecture space alternatives and lab footprint requirements

Key long-term viability conditions:

- Confirm sustained annual funding for consumables
- Confirm **dedicated lab access** comparable to lab and classroom(s) in WM and LRC buildings
- Confirm-ability to recruit/retain qualified FT faculty given external wage competition

New Equipment needed (include cost)

Initial startup need for hand tools, simulator systems and costs for lab work areas likely **\$125,000 including computers and associated hardware for 20 students**. This consideration includes annual costs associated with eLearning licensing access for students

New/Remodeled Facilities (include cost)

Facilities requirement:

- **Lab space: 40' x 40'** (WM-lab-equivalent)
- **Lecture space:** classroom in **LRC, MC, or WM** buildings

Cost: TBD (depends on whether you repurpose existing space or remodel/build out a dedicated lab).

Typical cost drivers to note (without inventing figures): power distribution, safety systems, benches/workstations, storage, code-compliant egress, ventilation (if applicable), and instructional technology.

Library Acquisitions (include cost)

Recommended baseline acquisitions to support instruction, safety, and documentation:

- Society of Manufacturing Engineers Tooling U subscription
- NEC 70B and 70E Electrical Standards textbooks/workbooks aligned to curriculum
- MSSC and SACA certification guides and exam-prep references (if pathway connects to certification)
- Safety and standards reference relevant to industrial work and lab instruction
- Graphics applications appropriate to engineering graphics field (CAD, 3D modeling, Print Reading)

Estimated annual library acquisition cost: \$3,500 (initial build-out may be higher if starting from minimal holdings).

Is the program compliant with all applicable laws, regulations, and curriculum standards?

Yes, the program is designed to be compliant, assuming standard approval steps are followed:

- Title 5 and CCCC curriculum approval requirements for noncredit CTE
- Local curriculum committee and Board approval processes
- Advisory committee validation and periodic review (CTE and CSU transfer expectation)
- Instructor qualification requirements consistent with district hiring standards and program needs
- Facilities and lab safety compliance for hands-on training

Will the program be eligible for Financial Aid (CA's with vocational TOP and degrees)?

For **noncredit**, traditional federal Title IV financial aid is typically **not available in the same way as credit degrees/certificates**.

Distance Education - Indicate the extent to which the courses associated with the degree are conducted via distance education _____ 0% ☒ 1-49% _____ 50-99% _____ 100%

For Career Education Programs: Provide labor market information (LMI) and other employers demand documentation demonstrating that there are jobs and careers available for program graduates

Signature: _____  _____ Date: 5/5/2026

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Return This Form to Scheduling Center for processing at Centersh@butte.edu