

Los Medanos College

Certificate Title: Construction Pre-Apprenticeship

Type of Certificate: This is a Non-Credit CDCP Certificate of Completion

Certificate of Completion Pursuant to Title 5, § 55151, students completing noncredit courses in a prescribed pathway, chartered by the Chancellor's Office, leading to improved employability or job opportunities, a Certificate of Completion may be awarded. A noncredit Certificate of Completion means a document confirming that a student has completed a noncredit educational program of noncredit courses that prepares students to progress in a career path or to take degree applicable credit courses (CCR, Title 5 §55151(h)).

Item 1. Program Goals and Objectives

In Contra Costa County, and East Contra Costa County in particular, residential, and commercial construction projects are expected to grow, thus requiring a labor force skilled in the various and necessary construction trades. LMC is meeting this workforce need by implementing a Construction Trades curriculum that will prepare individuals for high wages and high demand careers, of which there is abundant need. The target population for the program is matriculating high school and adult education students (formerly incarcerated) as well as unemployed or underemployed adults wanting to enter the construction trades.

Upon successful completion of this pre-apprenticeship program, students desiring entry into the construction trades may earn a certificate issued by the North America's Building Trades Unions entitled Multi-Craft Core Curriculum. The program is made possible through a partnership with the Contra Costa Building and Construction Trades Council (CCBCTC).

Learning Outcomes:

1. Explain basic construction principles and techniques and adapt them to various construction situations.
2. Discuss professional conduct, teamwork, and responsibility.
3. Name various construction materials and their applications.
4. Identify hand tools and their various applications to construction processes.
5. Identify power tools and their various applications to construction processes.
6. Practice job site safety, housekeeping, and professional behavior.
7. Participate in job site experience in the construction field.
8. Exhibit proper selection of lift equipment for a given task.
9. Perform lift truck operating skills utilizing basic lifting, stacking, and moving maneuvers.
10. Demonstrate personal and workplace safety rules and practices.

Student Fees:

A mandatory fee of \$100 will be collected for the Multi-Craft Core Curriculum (MC3) certification. The fee will be refunded to students who do not complete the program.

Students are to wear construction work-appropriate attire. A.) Work boots must have reinforced toes that meet ANSI/ASTM standards. B.) Pants are to be without holes or fraying. C.) Shirts are to cover the torso and shoulders: capped sleeves are allowed. D.) Shirts are to have a neckline

that will not allow debris to fall between the clothing and the skin. The students will be provided Personal Protective Equipment (PPE) such as safety glasses, gloves, and Hearing Protection at no additional charge.

Item 2. Catalog Description

The Construction Pre-Apprenticeship program features the Multi-Craft Core (MC3) curriculum approved by the National Building Trades that gives participants a leg up in understanding the crafts, gaining safety certificates, and being able to prepare for a successful apprenticeship. The program includes 112 hours of classroom instruction and 108 hours of hands-on training where students will gain experience in framing, electrical, plumbing, sheet metal, masonry and more. Also included is instruction in blueprint reading, CPR/First Aid, Hazmat, OSHA 10 training, and Forklift Operator Training.

If you like the idea of working outside, working with your hands, and working as part of a team, then a career in construction might be for you. Pre-Apprenticeship enables you to learn about various crafts and explore which ones you might want to pursue. You will be introduced to the tools of the trades, beef up your math skills, learn about how to work safely, and much more. This 16-week program is geared to preparing you for the rigors of the industry, but they do NOT guarantee entrance into an apprenticeship program.

Item 3. Program Requirements

COURSE NAME	COURSE #	HOURS
Construction Pre-Apprenticeship Fundamentals	CONST-010N	96
Applied Construction Pre-Apprenticeship Skills	CONST-012N	96
Forklift Operations LOGIS-012N	CONST-015N/	16
Forklift Operations Lab LOGIS-13N	CONST-016N /	12
Total Hours:		220

Fall Term:

CONST-010N

CONST-012N

CONST-015N/ LOGIS-012N

CONST-016N / LOGIS-13N

c. **Forklift Operations CONST-015N:** The Forklift Operations course meets Occupational Safety and Health Administration (OSHA) Standards for forklift Operator training, and is designed to help protect company employees, equipment, and materials with a comprehensive and immersive set of smart training solutions for all forklift operators.

This course is a short-term course and is completed every semester.

d. **Forklift Operations LAB CONST-016N:** The Forklift Operations LAB course is to provide valuable time to practice and hone necessary skills needed for safe operation of the forklifts.

This course is a short-term course and is completed every semester.

Item 4. Master Planning

The Construction Pre-Apprentice program touches each of the college's four broad strategic directions to promote equity, engagement, and effectiveness for student success:

1. Increase equitable student engagement, learning, and success.

Los Medanos College has a strong history of innovative workforce development initiatives including the Career Advancement Academies, California Apprenticeship Initiative, Workforce Accelerator Fund grants, etc. Each of these is focused on innovative ways to engage students using strategies such as learning communities and early alert software. The pre-apprenticeship cohorts will benefit greatly from this experience.

2. Strengthen community engagement and partnerships.

Los Medanos College prides itself in its strong community partnerships with agencies such as the Contra Costa Building Construction and Trades Council which enthusiastically approved the college's access to MC3 curriculum. Each of the three (3) high school districts that lie within the college's service area are enthusiastically waiting for the program to launch. Lastly, the local workforce development board as well as community-based organizations supporting the region's hardest to serve populations, including those justice-involved, are strong supporters of the program.

3. Promote innovation, expand organizational capacity, and enhance institutional effectiveness.

The development of a new Construction program at LMC and the opportunity to offer pre-apprenticeship using noncredit Career Development & College Preparation (CDCP) is consistent with the college's desire to reach students previously unserved in its service area. With vast expanses of yet-to-be-developed land in East Contra Costa the opportunities for local employment in union construction careers with family-sustaining wages will define the institutional effectiveness of the college in coming years.

4. Invest in technology, fortify infrastructure, and enhance fiscal resources.

In the summer of 2020, the college will invest \$2M plus to remodel and expand existing career education lab space in order to accommodate the addition of the construction program and others. Design efficiencies will allow the space to be transformed with minimal effort to accommodate instruction in fabrication technology, HVAC and, potentially a shared maker space. These investments in infrastructure, along with new state-of-the art tools, equipment and

Labor Market Projections – East Bay Area (Contra Costa and Alameda Counties)

Source: Economic Modeling Specialists Intl. (EMSI)

As of February 1, 2023.

Description	2023 Jobs	2028 Jobs	2023 - 2028 % Chan ge	Avg. Annual Openin gs	Median Hourly Earnin gs
Construction Laborers	15,071	15,672	4%	1,634	\$23.26
Carpenters	12,485	12,710	2%	1,254	\$29.83
Electricians	7,861	8,930	14%	1,066	\$38.96
Painters, Construction and Maintenance	6,342	6,598	4%	616	\$23.98
Plumbers, Pipefitters, and Steamfitters	4,861	5,133	6%	559	\$34.16
Drywall and Ceiling Tile Installers	2,601	2,644	2%	230	\$34.85
Operating Engineers and Other Construction Equipment Operators	2,358	2,418	3%	257	\$44.23
Roofers	2,092	2,053	(2%)	198	\$32.71
Cement Masons and Concrete Finishers	1,696	1,693	(0%)	152	\$33.35
Sheet Metal Workers	1,242	1,277	3%	130	\$33.35
Plasterers and Stucco Masons	957	994	4%	93	\$27.90
Tile and Stone Setters	873	895	2%	84	\$25.61
Glaziers	722	758	5%	86	\$32.63
Solar Photovoltaic Installers	616	718	17%	91	\$25.78
Structural Iron and Steel Workers	628	656	4%	71	\$40.77
Brick masons and Block masons	515	555	8%	61	\$26.90
Floor Layers, Except Carpet, Wood, and Hard Tiles	485	514	6%	49	\$29.99
Carpet Installers	519	491	(5%)	44	\$24.36
Tapers	377	369	(2%)	31	\$33.36
Paving, Surfacing, and Tamping Equipment Operators	322	318	(1%)	35	\$34.78
Reinforcing Iron and Rebar Workers	305	313	2%	32	\$25.70
Insulation Workers, Floor, Ceiling, and Wall	211	215	2%	20	\$23.28
Pipelayers	195	194	(1%)	19	\$28.22
Pile Driver Operators	188	182	(3%)	19	\$50.55
Terrazzo Workers and Finishers	99	96	(3%)	9	\$28.67
Stonemasons	64	64	0%	7	\$22.09
Boilermakers	62	62	1%	6	\$56.31
Floor Sanders and Finishers	56	54	(5%)	5	\$18.94
Insulation Workers, Mechanical	47	50	6%	5	\$29.76
Paperhangers	35	34	(3%)	3	\$23.01
	63,886	66,660	4%	6,865	