

Next Generation Workforce

Solutions to the Growing Qualified
Employee Shortage

FESTO



Steve Lehr

Director of Business Development
Festo
Steve.Lehr@festo.com

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The “C’s” of a CTE

Client – students enrolling in programs trusting they will learn skills and information leading to a career path

Customer – learning institutions wanting to serve the needs of their students and their businesses

Customer – businesses and industry needing a skilled workforce pipeline

Content – the combination of SME and market intelligence to provide the right solutions to the client and customers

Curriculum – comprehensive, current, complete and correct

Classroom – aspirational and relevant encompassing industry knowledge and skills applications

Core – foundational skills translating to multiple disciplines, career paths and workforce requirements

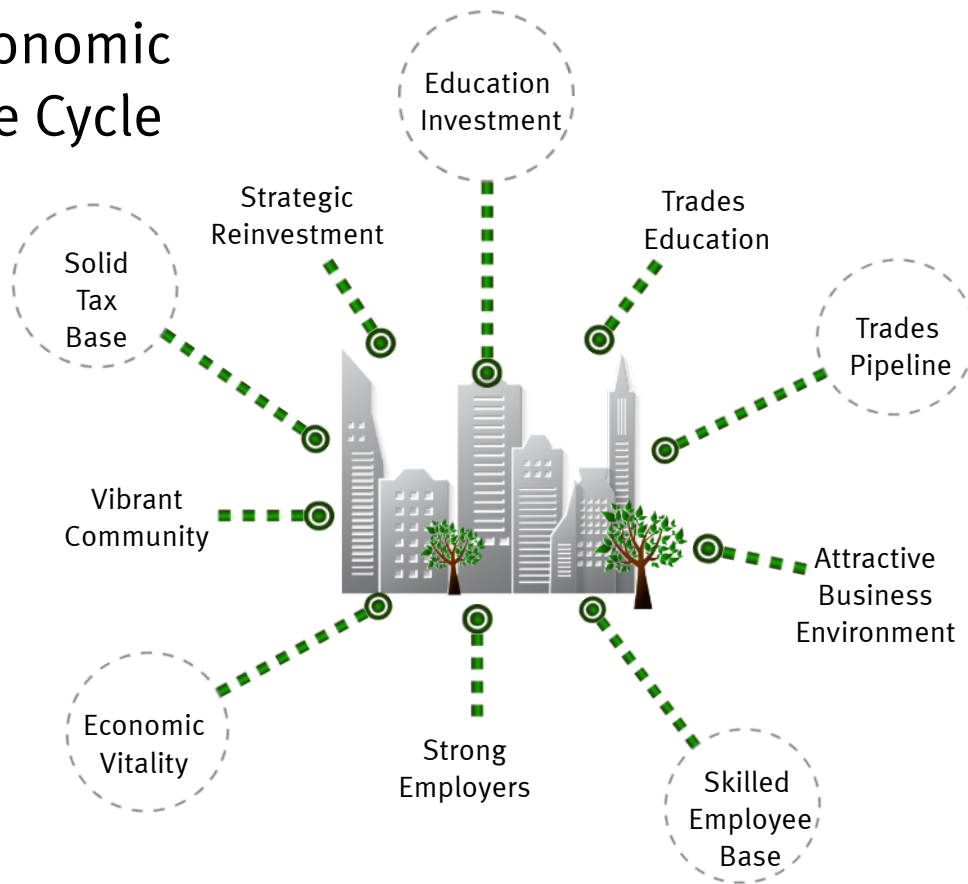
Competencies – development of understanding of job ready skills at the theoretical and practical level

Certifications – focused, stackable, demonstrated, and documented knowledge and skills

Credentials – combination of knowledge and skills into a capstone, level, designation, standard or title



Economic Life Cycle

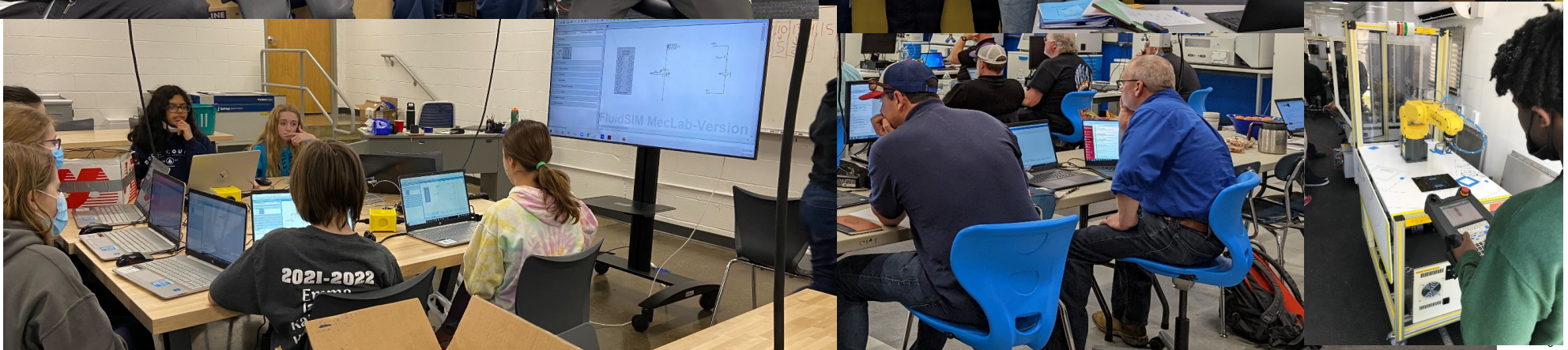
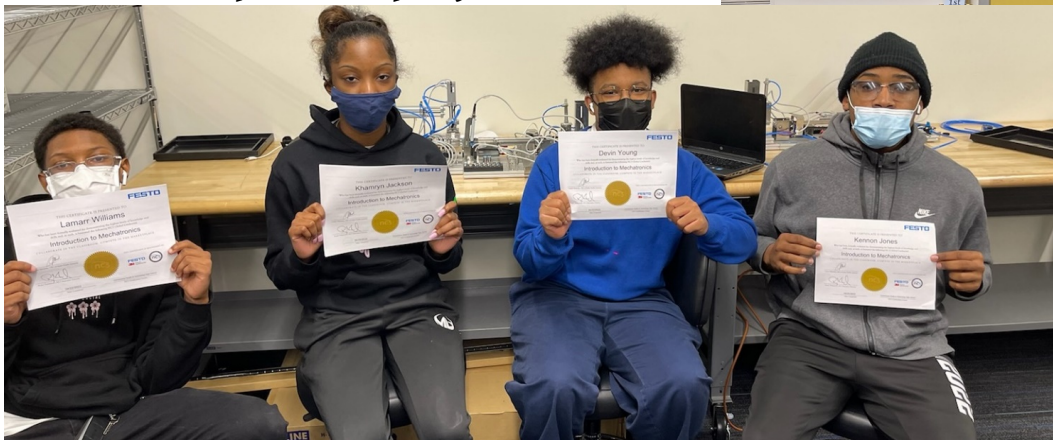


“The three things in attracting industry is not “location, location, location”, it’s “workforce, workforce, workforce.” – Jim Flanagan, President of Desoto EDC.

The “Super” Employee



Future "Super" Employees



Certification programs essential tools of technical education

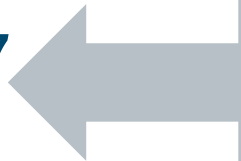


Wholistic Solutions

NC3 INDUSTRY PARTNERS IN EDUCATION



145 Unique Certifications from 17 World Class Industry Partners



STEM
 Manufacturing
 Buildings & Trades
 Welding

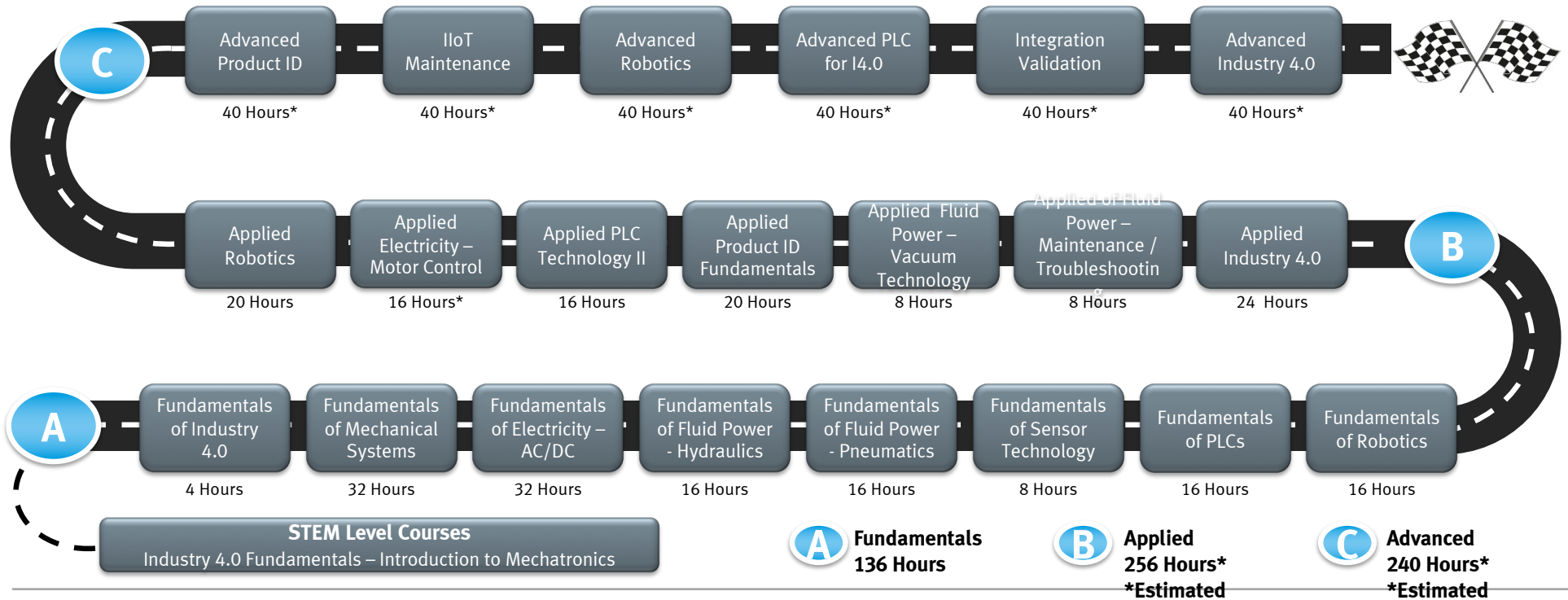
Aviation
 Digital Literacy
 Health and Safety

Lifelong Learning



Creating Learning Pathways

Festo Industry 4.0 Certification Program Roadmap



Texas CTE Leading Innovators

Temple College - Engaged, Enlightened and Enthused



Workforce Development Division

- Workforce Training
- Continuing Education
- Adult Education Literacy
- Industry Recognized Credentials
- ESL
- Custom Industry Specific



Employer Engagement

- Tactical Planning - immediate needs
- Strategic Planning – future needs
- New Technologies entering the local market
- Expanding the labor pool
- Local Industry – manufacturing, agriculture, etc.

Diverse Delivery

- Credit and non-credit
- Dual Credit
- Workforce training
- Industrial training
- Non-credit to credit conversion
- Dynamic Scheduling

Community effort

- Secondary System
- Economic Development
- Local Industry and Commerce
- Key community stakeholders
- State organizations

Credentials Should Meet the Needs of Industry and Employers



SOC	Job Title	Texas Employment		Texas Mean Wage	Texas Growth	Demand vs USA of 7.7%	Intro to Mechatronics	Fund of Industry 4.0	Fund of Electricity	Fund of Robotics	Fund of Mechanical Syst	Fund of Sensor Technology	Certified PLC's	Applied Industry 4.0- Fund	Applied Robotics	Applied Fluid Power	Applied Product ID	Applied Industry 4.0	Advanced PLC Technology	Cyber Security	Advance Robotics	Human Machine Interface	Smart Maintenance	Advanced PLC
		12.1M	\$ 39,640																					
00-0000	Texas Employment	12.1M	\$ 39,640	12.7%																				
17-2112	Manufacturing Engineers	18,170	\$ 96,300	15%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17-3023	Electrical and Electronic Engineering Technologists and Technicians	10,610	\$ 69,310	8%					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	1,480	\$ 52,010	14%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17-3026	Industrial Engineering Technologists and Technicians	6,970	\$ 62,680	4%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17-3027	Mechanical Engineering Technologists and Technicians	3,320	\$ 61,400	11%		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25-1194	Career/Technical Education Teachers, Postsecondary	10,240	\$ 56,190	13%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25-2023	Career/Technical Education Teachers, Middle School	1,640	\$ 59,320	10%		X		X																
25-2032	Career/Technical Education Teachers, Secondary School	10,720	\$ 59,480	10%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	84,180	\$ 62,390	17%			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47-2111	Electricians	68,180	\$ 50,100	14%			X	X		X	X					X								X
47-3013	Helpers--Electricians	10,130	\$ 34,140	9%			X	X		X	X													
47-4021	Elevator and Escalator Installers and Repairers	3,060	\$ 76,890	12%		X	X	X		X	X	X		X	X	X					X	X	X	X
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	44,030	\$ 67,430	13%		X	X		X					X							X			
49-2011	Computer, Automated Teller, and Office Machine Repairers	8,600	\$ 37,280	12%		X		X		X	X					X		X			X			X
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	1,320	\$ 49,870	27%				X		X	X					X								X
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	17,120	\$ 58,370	18%				X		X	X					X								X
49-2091	Avionics Technicians	2,930	\$ 67,920	7%				X		X														
49-2092	Electric Motor, Power Tool, and Related Repairers	1,070	\$ 43,190	13%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	1,240	\$ 71,380	11%		X		X		X	X			X							X			X
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	6,330	\$ 61,130	9%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	1,480	\$ 38,580	-4%				X																
49-2098	Security and Fire Alarm Systems Installers	8,110	\$ 49,050	15%		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	28,010	\$ 48,030	16%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-9031	Home Appliance Repairers	2,270	\$ 39,470	8%		X		X		X	X										X			
49-9041	Industrial Machinery Mechanics	41,140	\$ 54,980	13%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-9071	Maintenance and Repair Workers, General	113,250	\$ 37,890	14%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49-9081	Wind Turbine Service Technicians	1,430	\$ 52,420	83%		X	X	X	X	X	X													X
51-2022	Electrical and Electronic Equipment Assemblers	22,630	\$ 35,630	7%			X	X	X	X	X	X												
51-2023	Electromechanical Equipment Assemblers	22,630	\$ 35,630	7%		X	X	X	X	X	X	X												
51-2092	Team Assemblers	74,550	\$ 29,930	-3%		X	X	X	X	X	X	X												
51-8091	Chemical Plant and System Operators	7,420	\$ 75,780	-19%		X	X		X	X	X			X										X
51-8092	Gas Plant Operators	3,750	\$ 70,370	13%		X	X		X	X	X			X										X
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	10,940	\$ 81,310	7%		X	X		X					X										
51-8099	Plant and System Operators, All Other	2,090	\$ 45,720	12%		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
51-9011	Chemical Equipment Operators and Tenders	14,460	\$ 61,780	-18%		X	X							X										
51-9012	Separating, Filtering, Clarifying, and Still Machine Setters, Operators	3,280	\$ 39,570	1%		X	X		X	X	X			X										
51-9111	Packaging and Filling Machine Operators and Tenders	21,040	\$ 29,270	8%		X	X		X	X														

MSA Occupation Relevance

area	area_title	occ_coc	occ_title	tot_enr	emp_pr	jobs_10	OH growth_1	US growth	h_mea	a_mean	h_pct1	h_pct2	h_med	h_pct7	h_pct9
17460	Cleveland-Elyria, OH	00-0000	All Occupations	1,047,350	1.1	1000.000			\$ 25.03	\$52,050.00	\$ 9.75	\$ 12.75	\$ 19.44	\$ 30.63	\$ 45.15
17460	Cleveland-Elyria, OH	17-3023	Electrical and Electronic Engineering Technologists and Technicians	510	17.5	0.485	-3%	2%	\$ 29.06	\$ 29.06	\$ 19.04	\$ 22.94	\$ 29.43	\$ 34.16	\$ 38.81
17460	Cleveland-Elyria, OH	17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	110	44.7	0.109	3%	3%	\$ 26.35	\$ 26.35	\$ 17.53	\$ 20.59	\$ 24.49	\$ 32.16	\$ 37.31
17460	Cleveland-Elyria, OH	17-3026	Industrial Engineering Technologists and Technicians	560	17.8	0.535	2%	2%	\$ 27.79	\$ 27.79	\$ 16.87	\$ 20.33	\$ 24.23	\$ 30.13	\$ 40.35
17460	Cleveland-Elyria, OH	17-3027	Mechanical Engineering Technologists and Technicians	600	11.0	0.574	2%	3%	\$ 27.70	\$ 27.70	\$ 17.67	\$ 21.27	\$ 27.28	\$ 33.97	\$ 38.55
17460	Cleveland-Elyria, OH	47-2111	Electricians	3,940	12.2	3.758	10%	8%	\$ 27.10	\$ 27.10	\$ 14.01	\$ 18.97	\$ 28.21	\$ 35.10	\$ 38.83
17460	Cleveland-Elyria, OH	49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	350	19.4	0.332	2%	1%	\$ 26.38	\$ 26.38	\$ 17.62	\$ 21.11	\$ 25.04	\$ 31.09	\$ 37.07
17460	Cleveland-Elyria, OH	49-9041	Industrial Machinery Mechanics	3,450	8.8	3.298	5%	16%	\$ 26.49	\$ 26.49	\$ 17.70	\$ 21.50	\$ 26.09	\$ 30.56	\$ 36.75
17460	Cleveland-Elyria, OH	49-9071	Maintenance and Repair Workers, General	11,790	5.5	11.260	4%	4%	\$ 20.40	\$ 20.40	\$ 11.17	\$ 15.03	\$ 19.41	\$ 25.47	\$ 30.49
17460	Cleveland-Elyria, OH	51-8099	Plant and System Operators, All Other	**	**	**	3%	0%	\$ 22.88	\$ 22.88	\$ 13.97	\$ 16.25	\$ 19.40	\$ 30.03	\$ 35.51
17460	Cleveland-Elyria, OH	51-9111	Packaging and Filling Machine Operators and Tenders	2,540	21.9	2.424	1%	1%	\$ 14.40	\$ 14.40	\$ 10.08	\$ 11.45	\$ 13.47	\$ 16.32	\$ 21.10

End in Mind: Helping a dealer work with a school in justifying starting an electrical program or grant qualification.

*“There’s never a traffic jam on the extra mile”
– Roger Staubach*

Aspirational Centers of Learning



Festo Didactic. The Solution Provider for Technical Education

Enabling people to shape the future

Thank you!!!

FESTO



Steve Lehr
Director of Business Development
Festo North America
Steve.Lehr@festo.com
512-365-4337