



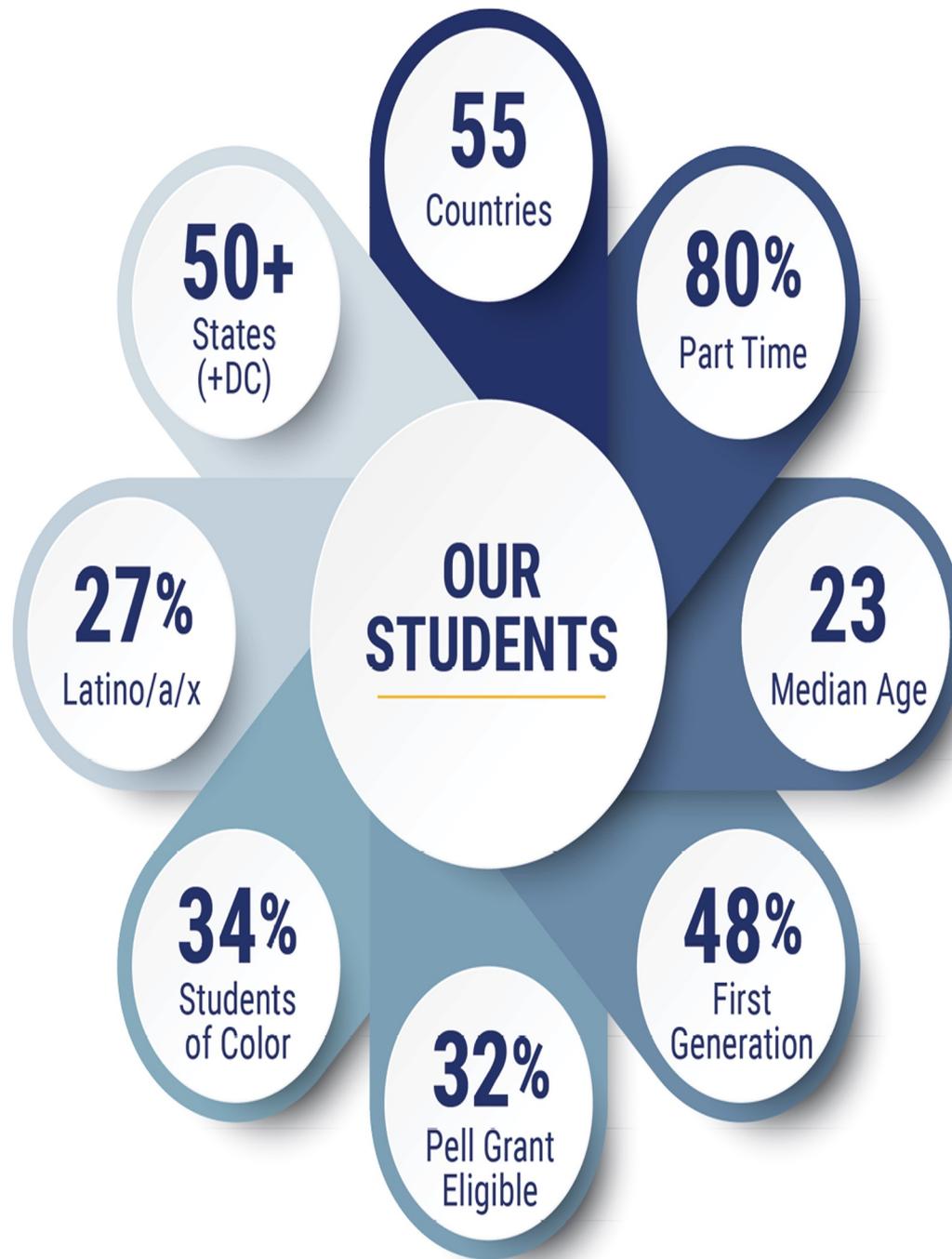
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Innovation with Increasing Access to Working Adults



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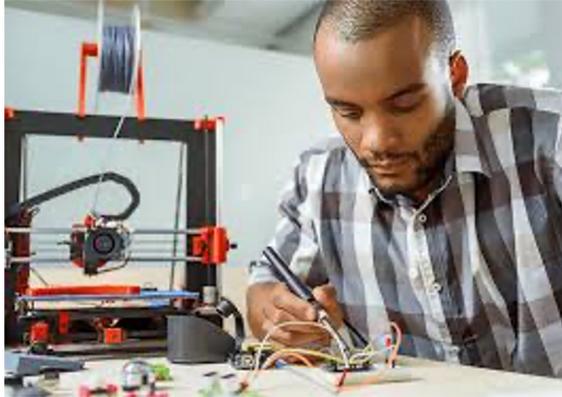




Center for Integrated Manufacturing

- Automation & Engineering Technology
- Electronics Engineering Technology
- Optics & Laser Technology
- Precision Machining
- Fast-Track Non-Credit Training
- Adult Learner Focus





Working Adult Challenges in CTE

- Family Obligations
- They are WORKING
- Time Management
- Financial Barriers
- Mindset
- Anxiety
- Motivation
- Geography
- Online Options – CTE Programs rely on hand-on learning



Barriers Create Opportunity

- Brick and Mortar Barriers
- Northern Colorado Manufacturing Needs
- FRCC/Broadcom Partnership
- Instructor Recruitment
- Timeline of Events
 - Summer 2023: MTE 1100, HLC approval
 - Fall 2023: Built Broadcom Learning Lab, Math 1150, PLA Agreement for MTE 1102 Safety
 - Spring 2024: ELT 1206, ELT 1004
 - Summer 2024: ELT 1212, GE requirement
 - Roadmap with goal to support pathways to completion on site





Student Success - Working Adults

- Spring 24 – Cohort successfully completed Electronics Assembly Certificate
- Spring 25 – Basic Electronics Certificate
- Fall 25 & Beyond – AAS Electronics Engineering Technology
- Assessment of Equipment
- Adapting Program for Semiconducting Manufacturing
- Institutional Partnerships



Fall2023			Spring 2024			Summer 2024		
MTE 1100	Print Reading		ELT 1206	DC/AC Fundamentals	Lab; Laptop	ELT 1212	Advanced DC/AC	Lab; Laptop
MAT 1150	Technical Math		ELT 1004	Assembly	Lab			
Fall 2024			Spring 2025			Summer 2025		
ELT 1247	Digital Devices I	Lab; Laptop	ELT 2235	Semicond Manuf I		ELT 2358	Intro to PLC	Laptop
ELT 2215	Op Amps	Lab; Laptop	ELT 2252	Motors & Controls				
			MTE 1100	Print Reading		ELT 1004	Assembly	Lab
			MAT 1150	Technical Math				
Fall 2025			Spring 2026			Summer 2026		
EIC 1265	Solid State	Lab; Laptop	ELT 2437	Vac & RF Power	Lab; Laptop	CIS 1018	Intro to PC Apps	Laptop; online
ENG 1020	Tech Writing	online option	ELT 2362	Microcontrollers				
ELT 1206	DC/AC Fundamentals	Lab; Laptop	ELT 1212	Advanced DC/AC	Lab; Laptop	ELT 2252	Motors & Controls	
COM 1250	Interpersonal Comm	online option	PHY 1105	Conceptual Physics				
Fall 2026			Spring 2027			Summer 2027		
ELT 2367/8	Intro to Robotics	Laptop	PHY 1105	Conceptual Physics				
			COM 1250	Interpersonal Comm	online option			
ELT 1247	Digital Devices I	Lab; Laptop	ELT 2235	Semicond Manuf I		ELT 2358	Intro to PLC	Laptop
ELT 2215	Op Amps	Lab; Laptop	EIC 1265	Solid State	Lab; Laptop			
Fall 2027			Spring 2028			Summer 2028		
ELT 2437	Vac & RF Power	Lab; Laptop	ELT 2367/8	Intro to Robotics	Laptop	CIS 1018	Intro to PC Apps	Laptop; online
ELT 2362	Microcontrollers	Laptop	ENG 1020	Tech Writing	online option			



Engaging Working Adults

- Meet students where they are at
- Relevance
- Experiential Learning
- Build connection
- Immediate feedback
- Provide application
- Industry collaboration



Working Adults in Semiconductor Manufacturing Changing the Paradigm





Additional Considerations

- PLA Considerations
- Competency-Based Learning Considerations
- Credit & Non-credit Considerations
- Modality Considerations
- Scheduling
- Support Services





Next Steps – Reflection

- Is this an outlier case or a new model?
- What did you learn that can be duplicated?
- What role does industry plays in addressing workforce needs?
- Q&A



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