Reskilling/Upskilling Adults through Micro-credential Innovation: TRUE

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# Texas Reskilling and Upskilling Through Education: TRUE Agenda

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Texas community colleges will be the state’s economic engine for recovery by providing training that meets regional and local labor market demands.
Learners from multiple entry points can enter careers, earn more credentials, and transfer to 4-year institutions. The PATHWAYS FRAMEWORK is designed to help learners connect, enter, progress, and succeed. The Texas Association of Community Colleges, Texas Success Center, and Community College Association of Texas Trustees are involved in this framework.
Section I

Making the Case and Implementation
CAREER PATHWAYS & CREDENTIALS
TRUE PATHWAYS
Systemic whole-college reform helping students reach their goals

Connect
Easily shop and select career pathways that include industry-based certifications within metamajor/career cluster

Enter
Onboard with a clear initial completion plan of less than 6 months

Progress
Gain skills and work-related experiences. Provide support to be successful.

Succeed
Complete credentials in key occupations with living wages

Learners From Multiple Entry Points
- High school
- AEL
- Cont. Ed
- Adults
- Displaced workers

Enter Good Careers
Earn More Credentials
Transfer
The TRUE Workforce Initiative

Phase I TRUE Colleges

• Central - Austin Community College
  Central - McLennan Community College
• East - Paris Junior College
• East - Northeast Texas Community College
• North - Dallas College
• North - Tarrant County Community College
• South - Alamo Colleges
• South - Del Mar College
• Southeast - Brazosport College
• Southeast - San Jacinto College
• West - Amarillo College
• West – Midland College

Phase I: January-August 2021

1. Identify high-priority credentials and foundational career specific skills
2. Design and implement high-quality, short-term and micro-credentials aligned with regional demand
3. Create program maps to credentials, including opportunities for careers, further education, and related wages

Phase II: September 2021-August 2024

1. Leverage business & industry partnerships
2. Utilize the Texas Pathways strategy for statewide scaling
3. Advocate for state and federal policy
### Profile: Statewide

**Key Occupation:** Cardiovascular Technologists and Technicians

<table>
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<tr>
<th>Job Postings</th>
<th>Median Salary</th>
<th>Projected Growth</th>
<th>Entry Level</th>
<th>BA+ Level</th>
<th>Automation Risk</th>
</tr>
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<tr>
<td>4,197</td>
<td>$52,560</td>
<td>16%</td>
<td>85%</td>
<td>10%</td>
<td>23% (Low)</td>
</tr>
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</table>

Based on BLS data for Texas

*Estimated growth in employment, 2020-2030*

Percent of job postings calling for 0-2 years of experience

Percent of job postings calling for a BA or higher

Based on Osborn and Frey’s methodology

### Top 5 Specialized Skills

1. Cardiopulmonary Resuscitation
2. Patient Care
3. Electrocardiogram
4. Cardiology
5. Catherization Laboratory (Cath Lab)

### Top 5 Certifications

1. First Aid CPR AED
2. Basic Life Saving (BLS)
3. Advanced Cardiac Life Support Certification
4. Basic Cardiac Life Support Certification
5. American Registry of Radiologic Technologists Certification

### Top 5 Employers

1. Hospital Corporation of America
2. Christus Health
3. Baylor Scott & White Health
4. Texas Health Resources
5. Houston Methodist

*License typically required

This occupation is important to the following industries:

Health Care and Social Assistance Professional, Scientific, and Technical Services Other Services (except Public Administration)
TRUE Pathways Map
Industry Area of Study: Health Sciences

**Cardiovascular Technologists and Technicians***
$52,560 (4,197 job posts)

**Starter Occupation**
- **Phlebotomists***
  - $33,090 (9,410 workers)
- **Pharmacy Technicians**
  - $35,110 (37,240 workers)

**Key Occupation**
- **Ultrasound Radiology Patient Positioning**
  - $19,520
- **Computed Tomography (CT)**
  - $20,740
- **Diagnostic Medical Sonographers***
  - $72,080 (sub-BA)
    - (2,495 job posts)
- **Magnetic Resonance Imaging Technologists***
  - $73,300 (sub-BA)
    - (2,589 job posts)
- **Radiologic Technologists***
  - $60,180 (sub-BA)
    - (4,096 job posts)

**Skills to Acquire**
- Electrocardiogram (EKG / ECG)
- Stress Testing
- Catheterization Laboratory (CATH LAB)
- **Diagnostic Imaging Patient Positioning**
- **Diagnostic Radiology**
- **Diagnostic Imaging**

**Salary Boost for Next Occupation**
- **Electrocardiogram (EKG / ECG) Stress Testing Catheterization Laboratory (CATH LAB)**
- **$19,470**
- **$17,450**

**Skills to Acquire**
- **Next-step Occupation**
- **TRUE Credential Example**: North Central Texas College’s EKG Technician Certification has 2 courses, can be completed in 15 weeks, and costs $1,199 for tuition, textbook, practical lab materials, and CET certificate testing fee.

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*License typically required*
Profile: Statewide
Key Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers*

9,235 Job Postings
Dec 1, 2019 - Nov 30, 2020

$45,510 Median Salary
Based on BLS data for Texas

16% Projected Growth
Estimated growth in employment, 2020-2030

38% Entry Level
Percent of job postings calling for 0-2 years of experience

0% BA+ Level
Percent of job postings calling for a BA or higher

65% (Med) Automation Risk
Based on Osborn and Frey's methodology

This occupation is important to the following industries:
Construction
Manufacturing
Retail Trade

Top 5 Specialized Skills
1. HVAC
2. Repair
3. Plumbing
4. Ventilation
5. Predictive/Preventative Maintenance

Top 5 Certifications
1. Drivers License
2. Environmental Protection Agency Certification
3. EPA/CFC/HCFC Certification
5. Occupational Safety and Health Administration Certification

Top 5 Employers
1. Sears
2. TDindustries
3. Lochridge Priest Industries
4. Johnson Controls Incorporated
5. Cxc Talent Solutions

*License typically required
*Texas Workforce Commission Target Occupation
TRUE Pathways Map
Industry Area of Study: Design, Manufacturing, Construction & Applied Technologies

Starter Occupation

Skills to Acquire

- Maintenance and Repair Workers, General
  - $36,560
  - (117,760 workers)
- Home Appliance Repairers
  - $40,420
  - (2,640 workers)
- Outdoor Power Equipment and Other Small Engine Mechanics
  - $37,400
  - (2,670 workers)

Salary Boost for Next Occupation

- HVAC Ventilation Duct Work Boilers
  + $8,950
- Transformers Wiring Schematic Diagrams Test Equipment Circuit Breakers
  + $5,610
- Welding Hydraulics Programmable Logic Controller (PLC) Programming Conveyor Systems Machining
  + $8,600
- Pipe Fitting Pipe Systems Residential & Commercial Plumbing Drain Cleaning
  + $5,270

Skills to Acquire

- HVAC Ventilation Duct Work Boilers
- Transformers Wiring Schematic Diagrams Test Equipment Circuit Breakers
- Welding Hydraulics Programmable Logic Controller (PLC) Programming Conveyor Systems Machining
- Pipe Fitting Pipe Systems Residential & Commercial Plumbing Drain Cleaning

TRUE Credential Example:
Austin Community College HVAC Certification has 4 courses, can be completed in 16-20 weeks, and costs $1,450 in tuition. 96% of students complete the program and 93% of completers are placed in HVAC jobs.

Key Occupation

Skills to Acquire

- Heating, Air Conditioning, and Refrigeration Mechanics and Installers*
  - $45,510
  - (9,235 job posts)

Salary Boost for Next Occupation

- Electricians*
  - $51,120
  - (sub-BA)
  - (4,780 job posts)
- Industrial Machinery Mechanics
  - $54,110
  - (sub-BA)
  - (2,767 job posts)
- Plumbers, Pipefitters, and Steamfitters*
  - $50,780
  - (sub-BA)
  - (4,406 job posts)

Next-step Occupation

TRUE Credential Example:
- Austin Community College HVAC Certification has 4 courses, can be completed in 16-20 weeks, and costs $1,450 in tuition. 96% of students complete the program and 93% of completers are placed in HVAC jobs.

*License typically required
The Post-Secondary Employment Outcomes (PSEO) is an experimental data product from the US Census Bureau containing earnings outcomes and employment flows for recent graduates of partner colleges and universities.

These statistics are generated by matching university transcript data with a national database of jobs.
## Dallas College True Pathway Focus Areas

### Manufacturing & Industrial Technology
- Logistics – Certified Logistics Technician and Associate
- Mechatronics – PMMI Mechanical and Fluid Power
- Robotics – Automation Technician

### Engineering, Technology, Mathematics and Sciences
- IT Support – Comp Tia A+ and Linux+
- Cloud Support – AWS SysOps Administrator and CyberOps

### Health Sciences
- Telehealth Patient Care Technician – PCT Certification and Google IT Support Professional

### Business, Hospitality and Global Trade
- Business Foundations
TRUE Pathways In Practice - Logistics Technician

**ASSOCIATE OF APPLIED SCIENCE**
Logistics and Manufacturing Technology AAS

**LEVEL 1 CERTIFICATE**
Logistics Distribution Technician Certificate

**FAST-TRACK CE**
Logistics Technician

- CNSF 1003 - Forklift Operator Certification
- QSHS 1000 - Basic Safety and Health
- MSSC Certified Forklift Technician (CFT)
- GSNA 10 Certificate
- LMCT 1019 - Intro to Business Logistics
- LMCT 1021 - Intro to Materials Handling
- MSSC Certified Logistics Associate (CLA)
- LMCT 1025 - Warehouse and Distribution Center Management
- MSSC Certified Logistics Technician (CLT)
- LMCT 1040 - Contemporary Logistics Issues
- IRUS 1000 - Global Logistics Management
- BMCT 2084 - Experimental Learning

**CE Non-Credit + Certifications**

**LEVEL 1 CERTIFICATE**
Logistics Distribution Technician Certificate

- LMCT 1310 - Intro to Business Logistics
- LMCT 1321 - Intro to Materials Handling
- MSSC Certified Logistics Associate (CLA)
- LMCT 1325 - Warehouse and Distribution Center Management
- MSSC Certified Logistics Technician (CLT)
- LMCT 1340 - Contemporary Logistics Issues
- IRUS 1000 - Global Logistics Management
- BMCT 2384 - Co-Op in Operations Management & Supervision

**Up to 18 Credits Articulated CEU**

**ASSOCIATE OF APPLIED SCIENCE**
Logistics and Manufacturing Technology AAS

7 Courses Specialization
- LMCT 3550 - International Logistics Management
- ENSL 1301 - Composition I
- MATH 13xx - College Algebra or Finite Math or Math for Business & Social Sci
- SPCH 13xx - Speech of Public Speaking
- Elective - Humanities/ Fine Arts
- ECON 2301 - Principles of Microeconomics
- or ECON 2302 - Principles of Macroeconomics

**ASSOCIATE OF APPLIED SCIENCE**
Transportation, Storage, and Distribution Managers
Median Salary > $97,115

18 Credits Articulated CEU + 3 Earned Credits + 9 Credits (Total 66 Credit Hours)

**TRUE Pathway**
Logistics Technician

The Logistics Technician TRUE Pathway is built on stackable, workforce credentials with employment and advancement opportunities in the local economy.
Driver Diagram Discussion Starter for TRUE colleges:
What’s Your Focus, What’s the Work to Be Done between Now & September?

**OVERALL AIM**

Build and scale a robust suite of (truly) stackable, high-value short-term credentials that align to regional labor market needs

**S.M.A.R.T. AIM**

Launch three micro-credentials in September

**PRIMARY DRIVERS**

Refining curriculum & aligning to pathways

Marketing & recruitment to ensure key partners are able to make sure potential students are aware of the opportunity & supported to enroll

Advisor preparation Designing the learner experience

**Actions**

Partnering with VPASs & Deans
Micro pathways visualizations
Streamline Articulation Agreements/Equivalencies

Testing messages
Providing marketing materials
Creating a Video library of curriculums
Engaging Industry-focus groups

Weekly meeting with Student Success: enrollment and advisors (creating advising model from non-credit to credit)
Hosting design sessions to complete student journey mapping
Focus groups with potential learners
Pilot: UpSkill Project

- 1 Facebook Ad
- Free Until July 17
- Products Tested:
  - 3 Marketable Skills Career Badges
  - 8 Professionals Certificates in IT Support, Cybersecurity, Construction Management and Health IT
  - Google IT Support Included
- Results as July 28:
  - 170: Approximate # of Inquiries
  - Over 300: Applications (% Women, Average Age: 38)
  - 187: Total Joined a Pathway and Actively Engaged
  - 131: Class Completions as July 28
  - 4 Top Pathways: Cybersecurity Analyst, Healthcare IT Support, Google Data Analytics, Construction Management
Del Mar College
TRUE Initiative Team

Dr. Mark Escamilla
President & CEO
TRUE Initiative Update

Micro-credentials:
  - Accounting
  - Industrial Machining Applied Technology Specialization:
    - Industrial Rotating Equipment Mechanic (Millwright)
  - Welding Applied Technology

Frontline Program Advisors:
  - P/T Career Counselor hired
  - Training for Program Coordinators and Program Managers
## Industrial Machining Applied Technology
Specialization: Industrial Rotating Equipment Mechanic (Millwright)

<table>
<thead>
<tr>
<th>Role</th>
<th>Median Salary</th>
<th>Courses</th>
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</table>
| Helpers                  | $30,967       | MCHN 2005* Millwright III  
MCHN 2007* Millwright IV  
MCHN 2016* Millwright VII  
MCHN 2018* Millwright VIII |
| Maintenance Technician   | $48,750       | MCHN 1325 Millwright I  
MCHN 1338 Basic Machine Shop I  
MCHN 1341 Basic Machine Shop II  
MCHN 1329 Millwright II  
MCHN 1300 Beginning Machine Shop  
MCHN 1343 Machine Shop Mathematics  
MCHN 1308 Basic Lathe  
MCHN 2312 Millwright V  
MCHN 2314 Millwright VI  
MCHN 1313 Basic Milling Operations  
INMT 2388 Internship – Manufacturing Technology/Technician  
OR  
PTRT 1313 Industrial Safety  
COMG 1391 Special Topics in Communications, General  
TECM 1301 Industrial Mathematics |
| Millwright               | $54,920       | ENGL 1301 Composition I  
Core Mathematics OR Life & Physical Sciences  
Core Elective  
Core Communications (SPCH) Core Elective  
Core Creative Arts or Language, Philosophy &  
Core Culture Core Elective  
Core American History, Government/Political Science  
Core Elective  
OR Social and Behavioral Core |

*Course able to be matriculated to credit
Section II  Business Advisory Council
Business Advisory Council

The Business Advisory Council (BAC) provides strategic guidance in three key areas:

• **Changes in the economy and job market.**
  • Provide insight into the areas of future job growth and the skills most critical to business and industry.

• **Texas Reskilling and Upskilling through Education (TRUE).**
  • Provide support, strategic guidance, and advocacy in establishing and advancing the components of the TRUE Initiative.

• **Legislative priorities and strategies.**
  • Provide strategic guidance in advancing the components of the TACC legislative priorities in support of a stronger Texas economy.
Industry Partners
# Membership of the BAC

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<th>Position</th>
<th>Name</th>
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<tr>
<td>6 College CEOs</td>
<td>President, Texas Business Leadership Council</td>
</tr>
<tr>
<td>CEO &amp; President, Precision Task Group, Inc</td>
<td>Managing Director, J. P. Chase</td>
</tr>
<tr>
<td>CEO &amp; President, Texas Chemical Council</td>
<td>Managing Director, J. P. Chase</td>
</tr>
<tr>
<td>CEO &amp; President, Texas Association of Manufacturers</td>
<td>Chairman of the Board, Hunt Companies</td>
</tr>
<tr>
<td>Chairman and CEO, Commit Partnership</td>
<td>Chair, Metro 8 Chambers of Commerce</td>
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<tr>
<td>Vice President, Texas Cattle Feeders</td>
<td>Director of Global Programs, AWS</td>
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<tr>
<td>Director of Workforce Partnerships, Lockheed Martin</td>
<td>Senior VP, Americas Manufacturing, LyondellBasell</td>
</tr>
<tr>
<td>Public and Government Affairs, ExxonMobil</td>
<td>Workforce Development Lead, Tesla</td>
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Section III

Legislation & Grant Funding
SB 1102 and TRUE Program Uses

By statute, funding for TRUE must be used as follows:

- to support industry-aligned, high-demand postsecondary workforce credentials or industry certifications in growing occupations that can be completed in six months or less;
- to provide training through existing, new or redesigned programs focused on high-demand skills and leading to workforce credentials or industry certifications in growing occupations;
- to expand institutional capacity to provide stackable postsecondary workforce and industry certifications in high-demand pathways;
- to provide student aid awards to incentivize enrollment and completion of industry-aligned, high demand postsecondary workforce credentials and industry certifications; and
- to cover the cost of tracking and reporting enrollment, credential completion and employment outcomes of students in these courses and programs to gauge student success.
Accelerating the Production of High Value Credentials

Additional GEER Funding July 2021:
$25 million - TRUE Program Start Up

Purpose:
Institutional capacity building to rapidly create, redesign and expand education and training programs in high value occupations that are tightly aligned with employer and industry needs.