Our Education and Workforce Development agenda focuses on implementing quality education reform for the entire continuum:

- Early Childhood
- STEM Foundation in K-12
- STEM Focus in Higher Education
- Transitioning/Incumbent Workers

The Missing Middle: Applied STEM Pathways from High School to Post-Secondary
Manufacturing Skills Certification System
The Applied STEM Pathway

Engage Across the Entire Spectrum of Students
Conceptual Framework For STEM Discussions

Expanding the STEM Pipeline

Focusing on Specific Phases Clarifies Objectives
Providing **competency-based**, customized education and training for the **manufacturing workforce**… *today and tomorrow*
ALIGNING STEM EDUCATION, CERTIFICATION AND CAREER PATHWAYS
For Florida via Engineering Technology A.S. Degree

EDUCATION PATHWAY

- MASTERS OR PHD
  - BACHELORS OF SCIENCE / ENGINEERING TECHNOLOGY (various disciplines)
    - Florida State Colleges; FA&MU;
  - BACHELOR OF APPLIED SCIENCE / TECHNOLOGY MANAGEMENT
    - Florida State Colleges; USF Polytechnic
    - Day/evening/hybrid
  - BACHELOR OF SCIENCE / ENGINEERING DISCIPLINES
    - USF, UF, UCF, FSU, FAU, FIU, UWF, UNF, private
    - Day/evening/hybrid

- ASSOCIATE IN (APPLIED) SCIENCE – ENGINEERING TECHNOLOGY
  - 60 Credit Hours/ Two Years Full Time
  - Day/evening/online/hybrid

ASSOCIATE OF ARTS/ ENGINEERING

- 60 Credit Hours/ Two Years Full Time
- Day/evening/hybrid

COLLEGE CREDIT CERTIFICATE PROGRAM

- Minimum of 12 Credit Hours/ Less than 1 Full Year
- (future alignment to appropriate credentials)

HIGH SCHOOL CAREER PROGRAM

- Machine Operator/ Maintenance
- Less than One Year Full Time

CERTIFICATION PATHWAY

- ISA Certified Automation Professional
- SME Manufacturing Engineer
- SME Manufacturing Technologist

- College technical certificates
  - ISA Certified Control Systems Technician
  - NIMS Level 1, Measurements, Materials, and Safety
  - Fluid Power certificates

- Engineering Technology Support Certificate
  - MSSC Maintenance Awareness; Safety; Quality; Manufacturing Processes and Materials; Certified Production Technician (CPT)
  - NIMS Level 1, Measurements, Materials, & Safety

- MSSC CPT (Maintenance Awareness; Safety; Quality; Manufacturing Processes and Materials)
- Florida Ready to Work Certificate

CAREER PATHWAY

- Mechatronics Engineer (17-2199.05)
- Manufacturing Engineer (17-2199.04)
- Mfg Technologist (17-3029.06)
- Plant Engineer
  - $51k - $79k

- Robotics Technician (17-3024.01)
- Manufacturing Technician (17-3029-09)
- Electrical Technician (17-3023)
- Mechanical Engineering Technicians (17-3027)
- Industrial Engineering Technicians (17-3026)
- Computer control programmer (51-4012)
  - $23k - $39k

- Electro-Mechanical Technician (17-3024)
- CNC Operators (51-4011)
- Automation Maintenance Technician
  - $17k - $27k

- Operator
- Production Worker (51-9199)
  - $17k - $27k

Florida Ready to Work (ACT Career Readiness)
Personal Effectiveness * Academic Competencies Workplace Competencies

Applied STEM (High School)
Dual Enrollment - Career Academy—Youth Development Programs

Out of School/Low Skill Youth/Adults
WIA/Career Centers – ESL/VESL - GED/ABE “Bridge” and Foundation Programs

Skilled Adults
Retraining/Lay Offs – Continuing Education Company Specific Apprenticeship

(Credit hours are based on semester courses)