



# FERRIS STATE UNIVERSITY

## COLLEGE OF TECHNOLOGY

### Workforce Development:

- New Training Needs for Tomorrow's Economy:
  - Retraining for Green Jobs – not so many new job classifications or degrees as new / additional skill sets for current workers:
    - Construction related *industry*: Architecture, Electrical, Carpentry, Facilities, Inspectors, Realtors, Insurance, Mortgage Brokers etc
    - Topics from Green Awareness, Energy Auditing, Weatherization, Renewable Energies (wind, solar, water, geothermal, etc.), Water Flow Restriction, Gray Water Usage, Landscaping for Energy Reduction, Energy Efficient Building Design etc.
    - Green Manufacturing Training for Engineers and Managers; Sustainable Design, Recycling, Cradle to Grave Energy Use, Reclaiming Manufacturing Energy for Other Uses, etc.
  - Diversification for Manufacturers – the unjustified fear of change when moving to Aerospace, Military, and Bio Mechanical Medical Device Manufacturing.
    - Management, Engineering, Quality and Production Workforce training
    - Changing; materials, costing and quoting, quality systems, and production training
  - Marketing of new technology jobs to our youth and displaced workers.
    - Exploration in grade school.
    - Basic skill exposure in middle school.
    - Basic skill development during middle school and early high-school.
    - High-school career exploration and basic employment skills
    - Certificate program ladder to Associate and Bachelor Degree Programs
  - As fewer workers become available more technology & automation is required in order to complete workloads required while maintaining quality and productivity – this in turn necessitates a more highly trained employee.
- Concerns in Training the New Workforce:
  - Assembly Workers to Technicians / Problem Solvers – fundamental skills required many times is lacking.
  - Certification of workers to recognized skills standards by a third party entity is now a requirement.
  - Promotion/Marketing of high skilled high paying jobs to math, science and communication proficient high school students is required.
  - Feeder technology based programs at High-School and Community Colleges are falling prey to budget cuts and low enrollments.
  - Building of applications training facilities to do competency based education for new technologies is required.
  - Creating a sustainable open entry / open exit competency based training model especially for retraining of displaced workers.

- Workforce Development Solutions:
  - Fundamental skills assessment and remediation training is available through partnering activities with Michigan Works Offices.
  - Partnerships that build certifications to Associate and then Bachelor Degrees through laddering approaches (The United Association, Washtenaw Community College, Ferris State University model).
  - Third Party Certification of workers through the Ferris State University DACUM (Develop A Curriculum Model) approach – involvement of corporate and organizational / association partners in industry skill standards, assessment generation and training development.
  - Task linked skill performance and theory assessment tools that target and individuals training needs to save employee / employer time and training funding.
  - Funding and using a flexible mixed delivery system through corporate collaboration and cohorts of participants. Cadillac Manufacturers Association example for “Industrial Maintenance Apprenticeship Program” bringing four companies together with like training needs.
  - Creation of statewide DACUM supported curriculum development of participant materials, instructor’s guide, and assessment tools – support this material development with instructor training programs.
  - Create Centers of Excellences in training with mobile delivery options or short duration intense laboratory activities. Examples would be mobile labs moved for regional delivery options, or on campus laboratories used for a straight forty hour 5 day program.
  - Continue and increase grant funding of new and existing employee training programs.

Respectively Submitted by:

Tom Crandell  
Director, CPD/FSU

Corporate and Professional Development  
1020 Maple Street, Suite 101  
Big Rapids, MI 49307-1649

Phone: (231) 591-5813  
Fax: (231) 591-5821  
E-mail: [cpd@ferris.edu](mailto:cpd@ferris.edu)  
Web: [ferris.edu/cpd](http://ferris.edu/cpd)