Addressing the Skills Gap:

Advanced Manufacturing Maintenance Technicians

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Why the Skills Gap in Maintenance?

- National trend
- Aging workforce
- Lack of interest in manufacturing among young adults
- Reluctance of unemployed individuals to work in manufacturing
- Advances in manufacturing technology
- Rising demand for advanced skills
Addressing the Skills Gap: The WPCC (et al) Approach

- Employer provided students
- Authentic learning
- Focus group of maintenance professionals that lead the design of the curriculum
- Learning outcomes were defined by the industry partners
- Pre-selected employees
- Instructors who are practitioners and traditional faculty
- Team Approach to Instruction
- Utilized strengths of a diverse group of instructors

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The Partners

Western Piedmont Community College
Provided instructional space, equipment, supplies and paid instruction

Burke Manufacturers Executive Council
Served as catalyst for focus group

Valdese Weavers
Provided assistance with instructors
Assisted with curriculum development
Provided employees

Leviton / Southern Devices
Assisted with curriculum development
Provided employees

Caterpillar
Assisted with curriculum development
Provided employees

Sypris Technologies
Assisted with curriculum development
Provided employees

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Why is it Different, Innovative or Unique?

• Curriculum was developed by a cross section of manufacturers who identified common skill gaps
• The class is structured as open enrollment to allow maximum flexibility for working adults
• Students attend either day or night classes as their schedules permit
• A blended learning approach is used:
  • Theory
  • Hands-on
  • On-line
• The ability to articulate completion of the CE class to CU credits

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Impact and Outcomes

• 95% Success Rate!
  (for a 16 week – 96 hour course)
• Both completers and companies reported a high level of
  satisfaction with the course.
• The partner companies requested the class be offered again in the
  Spring and Summer of 2014.
• The program was blended with the NC Back to Work program to
  allow for unemployed individuals to participate.
• The current class consists of approximately 50% incumbent
  workers and 50% NC Back to Work students.
• Additional partners participated in the second round.

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How the Program was Funded

- Customized Training Project Funds
- Regular Occupational Extension Funds
- Company Investment
- NC Back to Work
- Burke Development, Incorporated

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Lessons Learned

- Post course de-briefing meeting.
- Companies shared their individual experiences and perceptions.
- Curriculum was revised to include specific topics that the company partners deemed important.
- The idea that providing maximum flexibility for working adult learners would result in a high success rate was supported by the outcomes.
- Social Network of a mixed class was beneficial to both students and employers.

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Instructors’ Experiences

- Instructors were concerned that many students believed that they were not “college material.”
- Many students did exhibit a lack of self-confidence in their abilities.
- Instructors reinforced the idea that the students were capable of success in a college level course.
- 100% of completing students earn college curriculum credit.
- At least one student has already entered an AAS curriculum program.

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