Advanced Manufacturing and Automation Flexible Delivery (AMAFD) Program

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With large manufacturers moving into the Reno, Nevada area, the need for competent technicians has become a paramount issue for these new industries and the economic success of our region. To generate the workforce necessary to fulfill this need, this AMAFD grant was created to fill the need for easy-to-use, flexible courses that will appeal to incumbent technicians, lower skilled workers, and students with non-traditional schedules.

1 Background

Students were learning in traditional lab settings with instructor. Maximum number of students per course was 40 students. New industry generated a waiting list of over 300 students. It was necessary to:

- Provide an educated workforce with appropriate curriculum to meet regional needs
- Provide technicians easier access to course material online
- Utilize a scheduling application that will reserve lab stations for technician use

2 Objectives

Program will increase capacity to meet regional demands by:

- Creating flexible class schedules with easy-to-access labs
- Review and utilize a lab scheduling application
- Validate our curriculum with industry employees by conducting a DACUM
- Add videos to class activities to allow students access to lectures online

3 Course Design

Instructor and designer will create courses that provide flexible scheduling by:

- Adding access to all reading material online
- Adding access to quizzes online
- Labs available 6 days a week, days and evenings
- Allowing Lab station scheduling so students could reserve a place before they came to campus
- Holding a DACUM to make sure curriculum lined up with industry needs

4 Completions

All reading material was added online
Online access to quizzes created
DACUM was held to verify curriculum
Videos have been created
Lab scheduling software reviewed and tested

5 Results

Videos are currently being captioned and added to classes as completed
Quizzes and some lab assignments added to classes
Lab scheduling software was well-received by students; however, instructors felt that dedicating a lab station to scheduling had too much of an impact on the use of that station in the lab
Total students enrolled in spring, 2019: 516
Total percentage passing: 81.2% (an increase of over 9% from previous semester)