

New Nevada Virtual Media Learning (NNVML) Project

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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, the NNVML project was created to increase access of high school students to the college's dual enrollment program in advanced manufacturing. It will do so by developing and using augmented reality and simulated lab experiences at the high schools. In addition, a new employability skills curriculum will be integrated into advanced manufacturing courses to prepare students for success in the workplace.

1 Background

Students were learning in traditional lab settings with an instructor. Maximum number of students per course was 40 students. New industry generated a greater need for new technicians. It was necessary to:

- Provide greater access to academic pathways leading to an Associate Degree in Advanced Manufacturing
- Help students learn the critical technical skills needed by manufacturers
- Aid students in learning employability skills that are needed to be hired, stay employed, and advance in a technical career

2 Objectives

Program will increase capacity to meet regional demands by:

- Promoting and expanding articulated/dual credit curriculum for high school-to-college advanced manufacturing courses within the state
- Providing simulations, augmented reality/virtual media and/or electronic training materials for off-site locations, high schools, and rural technicians
- Implementing life skills training for technicians to not only enhance employability but also improve their quality of life and encourage lifelong learning

3 Activities

To complete the objectives of this project, the PI and co-PIs will:

- Expand articulated/dual credit for high school students in our Advanced Manufacturing and Robotics courses
- Add simulations using augmented reality and/or virtual media or electronic training to off-site locations
- Include life skills learning in Advanced Manufacturing classes to provide technicians with workplace readiness skills

4 Completions and Results

Project has been funded on July 1, 2020
Microsoft HoloLens 2 virtual media glasses have been ordered and received
Vuforia Studio software has been received for content development
TMCC's efforts have just begun

