



# HOME4TECHS

Hands On Maintenance Education 4 TECHnicians



## Problem:

- Curriculum needed realignment to employer needs
- Traditional college schedules no longer works for employers
- Inconsistent skill levels of graduates
- Completion of traditional college certificate/degrees take too long

## Solution:

- Redesign the curriculum to meet employers needs
- Build a **competency-based, hybrid instructional model**
- Require individual skill assessments
- Move the courses' **lecture portion to an online format**
- Utilize technology tools to accelerate learning
- Offer the students a **flexible open-lab schedule**

## Project consists of 3 distinct areas:

### Curriculum

- Realignment of curriculum
- Competency-based learning
- Hybrid course model
- Modular online eLearning
- Hands-on assessments
- Open lab learning model

### Technology to accelerate learning

- Virtual machines for each student
- Hands-on hardware simulations
- Student access to software 24/7
- Virtual interactive simulations
- MOOCs

### Faculty professional development

- Quality matters
- Instructional systems design
- Online course development
- Instructing online courses
- Technical content cross-training
- Learning object development



**Programmable Controller Course**  
Allen Bradley MicroLogix and CompactLogix

**Motors & Controls**  
Allen Bradley PowerFlex 70s and 525s

**Servo & Robotics**  
Fanuc LR Mate 200iD



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## **HOME4TECHS Data**

**Data Results of the Project:** This new model was implemented in the second 8-week period of the Spring 2016 semester, and data was collected for two years (through Spring 2018 semester). This data was compared to the same type of data collected for the 2 years prior to the implementation of the new model (Spring 2014 through Spring 2016-first 8 weeks).

During the 2 years of implementing the new model, the data shows:

1. An enrollment increase in these 3 course of 44% (from 324 to 466 enrollments).
2. The level of issued grade for the 3 courses increased by 7%.
3. The number of course completions increased by approximately 9.6%.
4. Directly impacted PLA (prior learning assessment) by providing a formal structure to assess knowledge and skills, and on internships which increased from 13 to 120 over two years.