

I. Welcome

HVAC/R instructor Pete Goodman welcomed the advisory group and thanked them for their participation. He then introduced Lynn Highsmith, the interim program director for HVAC/R, Machining, and Welding.

II. Introductions

Lynn echoed Pete's thanks and introduced herself to the group; the business advisory group members introduced themselves.

III. Program Review

a. 2013-2014 Health Indicators and Program Outcomes

Lynn gave a status update for the HVAC/R program:

- The program is viable with 95.4% of concentrators finishing the program.
- 57.6% of the students are enrolled full time.
- For the 2013-2014 academic year, the program produced 33 graduates. This number isn't completely representative of the graduates produced because the school reports graduates on a 12-month fiscal calendar while the program currently lasts 13 months. Students who begin the program in January complete the following February, and students who begin the program in August complete the following September.
- The program is working on increasing the students' response rate on the course feedback surveys. Students are being encouraged by their instructors to complete the survey at the completion of every module.
- The HVAC/R program has met all program outcomes

IV. Program Updates

1. Donald Laurent

HVAC/R instructor Donald Laurent is satisfied with the outcome of the group that recently completed. 15 of the 18 students secured jobs at the 75% point of the

program, when the opportunity for fieldwork opens, and three were hired on by business partner CMI Services. Students also gained fieldwork positions at John C. Cassidy, Lindstrom, Service America, among others. Many companies are interested in meeting and interviewing our students when they are eligible for fieldwork. However, we can improve the program still. The biggest challenge is to get students to the level where they can troubleshoot. The group discussed how to improve that skillset. Some students come in with the aptitude for it, while others have to learn and build that skill.

2. Pete Goodman

HVAC/R Instructor Pete Goodman is working with the college to install outside a condensing unit for a residential split system. Having the condensing unit outside will more accurately simulate conditions that students will see as technicians on the job, rather than the current set-up where the condensing unit is inside the lab. Pete has received permission from the college to install the air handler and is waiting for permission to drill a hole in the wall for the condensing unit. Pete provided blue prints for an updated electrical system to the college and is waiting for college approval.

Pete arranged with Steve Sparks for Pat Mesmer to teach a duct class during the first week of December. This will line up with duct training for the apprenticeship students.

The college is still in its first year of NATE (North American Technician Excellence) testing. During the last test session held on September 26, two of the five students who tested passed the Core Service and AC Service tests, and an additional two passed the Core Service tests.

The students replaced the condensing unit on the #2 walk-in cooler. The unit is working well.

Kent Hartwig set up CAD Welding training for HVAC/R students on November 10. He also set up a presentation for December 2 on Arc Flash, taught by Carpenter Electric. Kent will provide the information to the business partners who expressed interest in the training for their students/staff and will see if Carpenter Electric will provide the training to companies.

V. NCCER Updates

NCCER now requires 3rd party proctoring of exams. Instructors can no longer administer tests to their own students.

VI. Program reconfiguration - cluster approved and proceeding to curriculum in January

a. Switching to alternative frameworks; 12 months

The program will be moving from one 1,350 hour program to different state frameworks, HVAC/R 1 (750 hours) and HVAC/R 2 (600 hours), which together will total the same 1,350 hours. Lynn is preparing to present this change to the Curriculum Committee in January. Other changes are planned as well which will make the courses more rigorous. The college is planning on aligning the curriculum more closely with NCCER by teaching the Core Curriculum, Level 1, and Level 2. Students will get the content multiple ways: through theory learning, practical application, in-lab demonstrations, and hands-on practice.

b. Reconfiguration of ACR0962 and ACR0961 courses to more advanced lab

ACR0961 and ACR0962 are the program's two 75-hour HVAC/R Fieldwork Experience modules offered at the end of the program. The program will be changing how it handles fieldwork in the future. Some students get placed in jobs for fieldwork experience but don't register for the fieldwork module(s), which means they don't complete the program. Any changes will not go into effect until fall 2015 at the earliest and will not affect students currently enrolled in the programs. The committee members offered suggestions as to how to encourage students to register for the modules and complete the program. For example, making an agreement with companies that fieldwork students' continued employment is contingent on them registering for their modules and completing the program; when employers find someone good, they don't want to let them go. Also suggested was having students do ride-alongs for one week in July or August so students can get a feel for what technicians experience in the field. Kent Hartwig's PSAV Residential and Commercial Electrician students complete a one-week internship instead of field work. Pat Rainey, who teaches HVAC at Royal Palm Beach Academy, experiences something similar;

some students take summer jobs but end up not returning to school because they are making money. This sparked a conversation on incorporating life skills and basic financial responsibility into the curriculum. NCCER Core does have sections on Basic Employability Skills and Basic Communication Skills, and Palm Beach State now requires students taking out student loans to complete an online financial literacy course.

c. NATE prep training

The college received funding to pilot NATE testing in the programs and is now in the second year of the pilot. The next test is scheduled for November 14. It is a difficult, technical test. The program is purchasing materials to better prepare students. The HVAC instructors discussed their plan to start integrating the content into the program earlier and working with students on how to analyze questions and use logic to eliminate wrong answers. Pat Rainey gave additional suggestions for how instructors could prepare students for this type of test.

d. Textbook changes- any suggestions?

Currently, the program uses *Electricity for Refrigeration, Heating, and Air Conditioning, 8th edition* published by Cengage Learning for the electrical courses. The book is expensive (\$231.75 new and \$174.00 used at the campus bookstore) and does not adequately meet all the needs of the program. The director and instructors are researching alternative texts and welcomed any suggestions. Pat Rainey suggested the instructors look into ESCO Institute, which specializes in individual modules which include a book, manual, and tests. The group discussed how there is no perfect book and textbooks cannot update as quickly as technology and the field evolve; units have an increasing number of electrical components, but many books don't even mention ECM motors. Websites and other training materials will always be needed to supplement textbooks. Kelly McCann will provide the instructors with some PowerPoints he uses with his trainees. Another suggestion was to let students build their own book. Provide students with a binder that they can fill with paperwork as the units are covered in class; make building the binder part of their grade so students keep up on the task and keep it organized.

VII. Action Items:

1. To what extent do you believe the college HVACR program is meeting industry needs? What ways could it improve?

Kelly McCann, whose company CMI Services employs three Palm Beach State graduates, said the program sounds like it is right on track. He wouldn't expect someone right out of the program to know everything. If the student has a solid foundation and the aptitude, he will finish the job. Some concepts are difficult to teach in the school environment. Richard Craig of Smithco Services said students have to want to learn. Employers also need to be careful not to overwhelm someone right out of school. Kelly also noted that technology is advancing and labor is struggling to keep up. Lynn proposed the idea of short-run courses to bring technicians in the field up to speed on new technologies. Kelly stated that CMI does their training in house but thought it may be good for them to hear it from someone else. Technology is eclipsing some technicians. Units are now circuit boards and technicians need a laptop and dongle to interface with some units.

VIII. Meeting Adjourned

Lynn announced that the program is preparing to offer short run CCE programs in Energy Management and Marine HVAC Systems. They are piloting to see what the interest is in the community. Lynn thanked the members for their time and announced that the next meeting would be held in June

Attendance:

Arturo Alba, Arco Supply

Lynnmarie Gomes Highsmith, Program Director, HVAC/R, Machining, & Welding

Pete Goodman, HVAC/R Instructor

Kent Hartwig, Program Director, Trade & Industry

Donald Laurent, HVAC/R Instructor

Kelly McCann, CMI Services

Patrick Rainey, Royal Palm Beach Academy

Erin Sullivan, Workforce Assessment Advisor

Submitted by:

Erin Sullivan, Workforce Assessment Advisor, Student Learning Center, Scribe