The Facilities Maintenance Technology - Electrical Trades - Apprenticeship Program Review was presented in the Winter of 2012. We thank you for your efforts to serve the building construction and facility maintenance and operations communities by delivering high quality courses aimed at preparing skilled crafts people, installers, and O&M personnel.

This response is in four parts: 1) commendations, 2) work still to be completed, 3) suggestions and observations, and 4) administrative response to SAC recommendations.

**Commendations**

- Strong narrative addressing Core Outcomes.
- Clear presentation of strategies to assess various degree and certificate outcomes, including mapping of these outcomes to the Core outcomes.
- Evidence of student achievement strongly suggests long-standing attention to the students’ attainment of outcomes.
- Being a leader in the statewide Apprenticeship education, including the development and revision of APR certificates and degrees.
- Creation of APR degrees and certificates that not only provide students with academic recognition, but connect them with the Core Outcomes.

**Work Still To Be Completed**

Neither FMT nor APR has a Core Outcomes/Course Mapping matrix posted, such as those at [http://www.pcc.edu/resources/academic/core-outcomes/mapping-index.html](http://www.pcc.edu/resources/academic/core-outcomes/mapping-index.html). Please develop such a matrix, consulting with Kendra Cawley or Scott McBeth for guidance as needed.

**Suggestions and Observations**

Evidence of assessment-driven change is presented but could be improved by strengthening the linkage to the results of assessment of student learning. (This is not a requirement at this time, but rather a comment for future consideration.)

**Administrative Response to SAC Recommendations**

Administrative responses to FMT-ELT-APR’s recommendations are found in *italics* below.
Based upon our Department’s assessment of student learning outcomes, the Trades and Industry Department should study, review, and implement all concrete means through which our SAC can increase our support and better address the PCC Core Outcome for “Cultural Awareness”.

_We concur and thank you for your commitment to improving Cultural Awareness of students, faculty, and staff. Should you need assistance, consult with Gabe Hunter-Bernstein._

Based upon our Department’s assessment of student learning outcomes, the Trades and Industry Department should continue to pursue training for our students using real-world, diverse types of HVAC-R and Electrical Equipment. This training should be hands-on. We should continue to upgrade and increase the training equipment our students are currently using either through direct purchase with available PCC funds or through our donation campaigns targeting the HVAC-R and Electrical Industries.

_Agreed. Please work with your Division Dean in prioritizing requests for funding, which may come from margin money._

Based upon our Departments assessment of student learning outcomes, the Trades and Industry Department should continue to employ part time Faculty who are professionals in their field and who continue to demonstrate professional competency in their job, as well as in the classroom.

_Agreed. Please work with those individuals to help them become better teachers, possibly by continuing to refer them to the non-credit “instructor effectiveness” courses developed and offered by Gabe Hunter-Bernstein._

Based upon our Department’s assessment of student learning outcomes, our department should continue our membership in the Oregon Community College Apprenticeship Council and continue to increase and fine-tune the Degree and Certificate programs now available statewide for persons who have completed Apprenticeship programs and who have obtained a License or Journey Card.

_Absolutely. Your commitment to this statewide organization and its activities are much appreciated._

We further recommend that our department pursue establishing two new Apprenticeship Programs, for which we would supply the coursework and also the services of Administrator: Limited Building Maintenance Electricians (LBME) and Limited Renewable Energy Technicians (LRT). Both programs would provide a vital service to Industry and job growth.

_Agreed. Please work with your SAC, Division Dean, and Dean of Instruction to obtain the support needed for this endeavor._

We further recommend that our Department upgrade our existing Programmable Logical Controller (PLC) Lab by replacing our older PLCs with an upgraded model. The use of PLCs is continuing to increase in order to provide efficiency to an increasing number of industrial processes, including efficient operation of commercial buildings. Cost of this upgrade is in the Range of $23,000.00 to $25,000.00.
Agreed. Please work with your Division Dean in prioritizing requests for funding, which may come from margin money. While we can consider doing this anytime, perhaps it would be best to obtain this equipment in Spring 2013 so that it can be purchased with margin money in this fiscal biennium and be available when your programs relocate to Swan Island.

We further recommend that our Department re-emphasize the green and sustainable content within our curriculum and that we also add more new green and sustainable courses. Target courses would be solar voltaic installation and commissioning courses, more Building Commissioning courses, an advanced building Energy Management class, our existing Direct Digital Control Class, our existing Heat Pumps and Natural Gas classes.

*We support this action and ask that you continue your involvement with SPARC and other programs engaged in sustainability efforts.*

We further recommend that our department conscientiously do our part to accomplish the build out of the new Swan Island Facility and that we explore the means to become a good steward of that site. PCC has purchased five acres of land on Swan Island as part of the current Bond Construction. After careful study by a Steering Committee, the Department of Trades and Industry has been selected to move to the Swan Island site, and the Facility Planning Phase for that move is currently under way. We further recommend that we productively use this new facility to expand and improve our instruction and training.

*There’s plenty of evidence that you’re already doing this and your work is much appreciated.*

Finally, we recommend that our current budget for Lab and Instructional materials be reviewed and increased due to rising costs of parts, equipment and supplies used during lab sessions. Some examples are copper tubing and refrigerants. In addition, increased funding would provide room for expansion in the renewable energy fields as well as continued quality for existing courses.

*Please work with your Division Dean on prioritizing Division requests for permanent increases to Materials, Supplies, and Services accounts, which may be possible with a planned permanent budget augmentation, aka, margin money conversion in the coming fiscal year.*

**Closing Comments**

We thank you for your efforts to prepare graduates for careers in building construction trades as well as and facilities operation and maintenance, and we support your efforts to improve the programs to better serve the needs of those desiring to enter these fields.

Administrative Response submitted by Scott Huff on behalf of the Deans of Instruction:

Birgitte Ryslinge, Rock Creek

Jeff Tripplett, Sylvania

Julie Kopet, Extended Learning
Scott Huff, Cascade