

## **Assessment, Improvement, Measurement (AIM): 09/20/2013**

**Plan Year:** 2012-2013

**Unit:** Engineering and Electronics Technology

**Coordinator(s):** Kevin Dunn, Karman Wheeler, Paul Turner

**Reviewer:** Paul Turner

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**Program Health Review:** Use the Annual Program Health Review to evaluate student achievement and, if warranted based upon analysis of the results, make program changes to improve student achievement.

Identify expected student learning outcomes, assess the extent to which these outcomes are achieved, and provide evidence of improvement based on analysis of the results.



**Measure Text:** PROGRAM HEALTH REVIEW - LEVEL 1

1. Program Health Review - Refer to the attached Annual Program Summary for longitudinal information related to enrollment, graduates, employment, employer and alumni satisfaction, and licensure pass rates.
2. Student Learning outcomes

Three student learning outcomes – Plan an assessment for each outcome identified, and assess the extent to which these outcomes are achieved, and provide evidence of improvement based on analysis of the results.

**Achievement Target:** Program Health Review Target - Maintain a level 1 assessment with comments from program coordinator, assistant dean, dean and vice president according to attached time schedule.

Student Learning Outcome Target - Student learning outcomes are identified, assessed on level of achievement, and evidence of improvement are provided based on analysis of the results according to the attached time schedule.

**Results:** Program Coordinator:

1. Strengths of the Program - The Engineering and Electronics Technology program continues to maintain strong enrollment and graduated approximately 20 AAS students this year. Our advisory committee continues to support the program and the current mission. We have continued to increase enrollment from 72 students (09-10), 124 students in 10-11 to 130 students (11-12). This is a 1.8% increase in 2 years. Retention rates have increased from 45.1% in 10-11 to 84% in 11-12. Student satisfaction remains at 100% with an increase in the number of respondents (from 4 to 6).

Equipment has been purchased through Perkins funding to maintain industry standard equipment training. The new Engineering and Electronics capstone course, where students review the materials in the program and take a national test (NOCTI) for assessing student outcomes, was started. The capstone enrollment has already doubled as more students are required to take it. We are also allowing Jefferson students to take the course online at the request of the Jefferson program coordinator.

2. Items Requiring Continued Attention – Even with an increase in retention rate, we will continue to monitor future retention rates.

Employer satisfaction is still at 50% this year (1 of 2). The survey questions might still be a factor as it was last year. We have no way of knowing. Also, with the low rate of return (2), the true story of how satisfied our employers are is hidden. Unlike some of the programs, many of our students do not inform us of where they are working. We have started an opt-in text announcement system where we can ask current and former students where they are employed. If they provide me that information, I will be giving that information to IR to potentially improve our return numbers.

3. Document and provide evidence indicating how last year's program review resulted in improvements in the program/department. Retention has increased with a dedicated effort on faculty member's part to encourage students to remain with the program.

Student learning outcomes have been positive in many aspects. We have taken the areas we have focused on and tried to improve upon those areas. Soldering, troubleshooting, and construction techniques are being emphasized in all program areas. The NOCTI exam is just being implemented this year as students come to the end of their program and earn a degree. This exam will be used in the future to gauge learning outcomes, and map out areas needing improvement in the program. At this time, we have not had enough students take the exam to see what impact it will have. We expect 100% of our program graduates will be taking the exam next year (13-14)

**AD Comments:** The Engineering and Electronics Technology program has high scores for Student Satisfaction (100%), Employer Satisfaction for Technical classes/proficiency (100%), and Employer Satisfaction for General Education courses (100%) for the reporting period. The reported Job placement figures did drop from 100% to 42.9% for the 2010 2011 school year. This is a trend noted in the Electrical Technology program. The sluggish economy during the period and may account for some of this decrease in placement. Since that time manufacturing in the Bluegrass region has rebounded and it is our hope that the figures in the area will return to normal in the next reporting period. The placement rate will be monitored for the coming year and reevaluated at that time. The Engineering Technology program continues to have strong enrollment and a high number of credentials issued for the reporting period. According to the KCTCS 2010 2011 Fact Book the program issued 273 credentials which included associate degrees, diplomas, and certificates in the 2010 2011 school year. This was up from 247 for the preceding reporting period. This figure accounts for 7.39% of all credentials issued by Bluegrass Community and Technical College for the reporting period. Please see below.

[http://www.kctcs.edu/~media/System\\_Office/About/Factbook%2012/1\\_Factbook\\_11-12\\_WEB\\_2.ashx](http://www.kctcs.edu/~media/System_Office/About/Factbook%2012/1_Factbook_11-12_WEB_2.ashx) Prior to 2009 2010 school year student Retention scores have been above 50% for the Engineering Technology program.

While up slightly from 41% in the 2009 2010 school year to 45.1% in the 2010 2011 reporting period the rate is down from 79.7% in 2008-2009 reporting period. Beginning in 2009 2010 a large number of WIA, WIB, and TIA students returned to school as the economy forced many companies in the area to lay off workers. This may have contributed to a larger number of workers with needs for transitional/remedial courses which adversely affected the retention rates. According to data available from the BCTC Retention Committee individuals with low Reading, Writing, and Mathematics scores have higher dropout rates historically. The figures will be monitored in the coming reporting period.

**Dean Comments:**

**VP Comments:** EET is another strong program with dedicated faculty, including the Coordinator and Assistant Dean. I am pleased that the ratio of full-time equivalent students to full-time equivalent faculty has remained a respectable 13.3.

**Target Results:**

**Findings:**

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