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## **AC 2012-3501: CRITERION 2: A DISCUSSION OF ABET PROGRAM EDUCATIONAL OBJECTIVES**

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## Criterion 2: A Discussion of ABET Program Educational Objectives

### Introduction

ABET has made a change in its definition of Criteria 2: Program Educational Objectives for the 2011-2012 review cycle and forward.<sup>1</sup> The definition previously stated that *Program Educational Objectives are broad statements that describe the career and professional accomplishments that the program is preparing the graduate to achieve*. This definition is now changed to *Program Educational Objectives are broad statements that describe what graduates are expected to attain within a few years of graduation*.<sup>2</sup> In light of these changes, ABET suggests that programs reassess their Program Educational Objectives to fit the new criterion definition.

### Background

Workshops and papers have addressed the previous definition of Educational Objectives. Locke<sup>3</sup> in his ABET workshop at the 2010 ASEE Midwest Section Conference states that some of the most common pitfalls when addressing Program Educational Objectives are that the objectives are too specific or are too much like outcomes. Constituencies' needs are not considered, and assessment and evaluation is not done systematically. Weisbrook and Schonberg<sup>4</sup> suggest that a review of Program Educational Objectives can be handled through discussion at a meeting with the program's professional advisory board, by convening employers that are participating in career fairs at the university and asking alumni to indicate a level of importance for each objective in a survey. Carter et al.<sup>5</sup> that the Program Educational Objectives should be

1. consistent with the mission of the institution.
2. consistent with the needs of key constituencies.
3. comprehensive.
4. consistent with other *ABET* criteria.
5. clearly defined.
6. measurable.
7. flexible.
8. published.

The process of determining and assessing Program Educational Objectives should also

1. provide a high degree of involvement of broad and appropriate constituencies of the program.
2. take seriously the mission of the institution.
3. provide for periodic assessment.
4. provide the means for applying the results of assessment to improving the program.
5. be a part of the broader assessment of *ABET* criteria.

Carter et al. also provide a list of task for developing and assessing objectives as well as a list of suggested documents that could be provided to ABET evaluators.

## Recommendations

Although each program is different and various ABET evaluators may have different views. A careful review of past experiences and literature leads to the following recommendations, as programs prepare for evaluations in this and following academic years, the following recommendations.

1. **The objectives should be broad.** A short list of broad objectives is easier to evaluate and has more meaning than a long list of specific objectives. Typical objectives could include employment within the profession, continuing to a graduate program, passing a national proficiency exam, as well as involvement in community and professional organizations.
2. **The objectives should be measurable.** Assessment of the program objectives is crucial to accreditation. In their Program Evaluator Candidate Training,<sup>6</sup> ABET addresses the variability in the assessment of Education Program Objectives for programs of different size, mission and ability to access their alumni, but emphasizes the need for such assessment.
3. **The objectives should flow out of the constituencies of the program.** Discussion about the creation, revision and assessment of these objectives should include the external advisory board members, students in the program, alumni of the program, and faculty involved in the program. Other constituencies may also be present.
4. **The objectives should describe the abilities and accomplishments of students after completing a program.** Although it is good to relate the objectives to the Program Outcomes, the objectives are not the same. Program Outcomes should state what the student should be able to accomplish at the time of completion of the program. Program Educational Objectives should address what the student does with these outcomes after leaving the program.
5. **The objectives should relate to the mission statements of the program and institution.** As such the institution should be considered in much the same way as the constituencies of the program. The objectives should flow naturally out of the stated mission of the program and this should flow from the institutional mission.

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<sup>1</sup> "ABET Changed Definitions for Program Educational Objectives, 2011-2012 Review Cycle and Forward", 2010, URL: <<http://www.abet.org/changed-definitions-for-program-educational-objectives/>>

<sup>2</sup> "ABET Criteria for Accrediting Engineering Programs, 2011 – 2012", 2011, URL: <<http://www.abet.org/eac-current-criteria/>>

<sup>3</sup> C. Locke, *What is ABET*, 2010 Midwest Section Proceedings, 2010, slide 25.

<sup>4</sup> C. Weisbrook and W. Schonberg, *A Streamlined Approach to Developing and Assessing Program Educational Objectives and Program Outcomes*, New Engineering Educators Conference Proceedings, 2011, AC 2011-1179.

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<sup>5</sup> M. Carter et al., EC2000 Criterion 2: A Procedure for Creating, Assessing, and Documenting Program Educational Objectives, *Proceedings of the 2001 American Society for Engineering Education Annual Conference & Exposition*, 2001.

<sup>6</sup> "ABET Program Evaluator Candidate Training", 2011, URL:< <http://www.abet.org/pev-candidate-training-module4/>>