ABET

Engineering Accreditation Commission

**E402 STATEMENT WRITING FOR PROGRAM EVALUATORS**

**The Exit Statement contains the following sections:**

1. **Introduction**
2. **Program Strengths (if any)**
3. **Program Shortcomings (if any)**
4. **Program Observations (if any).**

**The Exit Statement should be written clearly for the Team Chair and Institution to understand the content of each section. Shortcomings should be listed in order of Deficiency, Weakness, and Concern. Under each shortcoming level, the criteria should be listed numerically. The following sections provide specific details and examples related to General Reviews, Initial Reviews, and Interim Visits. An example Exit Statement is provided at the end of this document and is also provided in E351 PEV Report.**

**The Program Audit Form is provided to institution at the conclusion of the review and contains only the Program Shortcomings.**

**PROGRAM AUDIT FORM (PAF) Tool**

PEVs will use the Program Audit Tool of the AMS system which enables the generation of both the Exit Statement and the Program Audit Form. After logging into AMS, click on the ‘Management’ link on the left menu, followed by the ‘Manage RFEs and Reviews’ link**.** After viewing the results on the ‘Manage RFEs and Reviews’ link, select the institution for which you are submitting a statement and then click on the “Program Audit tab”. Detailed directions for using the Program Audit Tool may be accessed by selecting “PDF Instructions” or “PEV Demo” under the Program Audit tab of the institution.

# **INTRODUCTION**

**The first sentence of the introductory paragraph must begin with the official name of the program (capitalize the program name) and include the degree designation in parenthesis (e.g., B.S., BS, BS in Mechanical Engineering, BSE, etc.) as listed in the RFE. Do not include the name of the institution in the introductory paragraph. The introduction should include information about the** administrative unit that offers the program**, its current enrollment and faculty size, and the number of graduates during the most recent academic year. If a program has concentrations or emphasis areas, these should be noted. For new programs, the introduction should also include the program’s launch date, the date of its initial graduates, and the statement “**This is an initial evaluation of the program by the EAC.” For interim visits, if current data are not provided you may use data from the previous statement with the introduction “At the time of the previous review…”

***Example – General Review.*** *The Environmental Engineering (Bachelor of Science in Environmental Engineering) program, which is administered by the Department of Civil and Environmental Engineering, offers a broad education with an emphasis on sustainability. In fall 2020, 70 students were enrolled in the program and the program produced 24 graduates in the 2019-20 academic year. The program has 16 full-time faculty members and is also supported by faculty members from civil engineering.*

***Example- Initial Review****. The Mechanical Engineering (B.S.) program was established in fall 2014 and is administered by the College of Engineering. Starting as a minor in spring 2013, the program evolved into a 121-credit-hour major program that was first offered in fall 2014. At the time of the visit, there were four pending faculty offers, 10 full-time faculty members, and 350 students in the program. At the start of the 2019-20 academic year, the program began offering courses at both the main campus and at the satellite campus located 15 miles to the east. The program had 10 graduates in its inaugural graduating class in May 2019. This is an initial evaluation of the program by the EAC.*

***Example – Interim Visit.*** *The Environmental Engineering (BSE) program, which is housed within the Department of Civil and Environmental Engineering, offers a broad education with an emphasis on sustainability and the intersection of natural and built environments. At the time of the previous review, 70 students were enrolled in the program, the program produced 24 graduates, and the program had 16 full-time faculty members.*

# **PROGRAM STRENGTHS**

**NOTE:**  The inclusion of strengths is not applicable for an Interim Report or Interim Visit.

**Program strengths are exceptionally strong and effective practices or conditions that stand above the norm and that have a positive effect on the program.** For each program strength identified, state:

1. what was observed,
2. what makes it stand above the norm, and
3. the positive effect it has on the program.

In the following example, **normal** text identifies what was observed, ***italicized*** text identifies what makes it stand above the norm, and **underlined** text identifies the positive effect the strength has on the program. However, when writing a program strength, only use normal text.

***Example****.* Faculty members have strong ties to local industry. *These interactions have led to industry-sponsored student projects, involvement of practicing engineers as adjunct faculty members, consulting opportunities for the faculty, and active participation by industrial constituents in the program’s evaluation processes.* The many opportunities that the students have to interact with practicing engineers gives them valuable insight into the engineering profession, provides opportunities for co-op and internship positions, and enhances their overall undergraduate experience.

***Example.*** There is significant synergy between the lecture and laboratory assignments throughout the program. *The demonstration of textbook theory using practical hands-on laboratory experiments, along with related projects, enhances student comprehension and knowledge retention.* This strong emphasis on providing industry-relevant laboratory content also enhances the students’ career opportunities.

The following are NOT appropriate program strengths:

* The faculty members are dedicated and very hard working.
* The departmental chair is an excellent administrator and is well-respected by the faculty.

# **PROGRAM SHORTCOMINGS**

**Program shortcomings are Deficiencies, Weaknesses, or Concerns.**

General Review or Initial Review: For each program shortcoming identified, use the 3-part construct:

1. State verbatim the portion of the criterion or policy that relates to the shortcoming.
2. State the evidence that resulted in the shortcoming. The evidence should be stated clearly so those in the editing chain can understand the reason for the shortcoming.
3. State how the shortcoming negatively impacts the program (if a Deficiency or Weakness) or potentially impacts the program (if a Concern).

Interim Visit: All unresolved shortcomings from the previous review must be addressed in the shortcoming section. For each of these shortcomings:

1. Provide a brief summary of findings as described in the Final Statement from the most recent review. The summary should be sufficient for team chairs and editors to understand the previous shortcoming. The summary may begin by “The previous review cited…”
2. Under a sub-heading titled “Progress Since Last Review,” provide a summary of evidence found during the visit to either clear the shortcoming, keep the shortcoming, or change the shortcoming to another level. The evidence should be stated clearly so those in the editing chain can understand the reason for the shortcoming. If a shortcoming remains, state how the shortcoming negatively impacts the program (if a Deficiency or Weakness) or potentially impacts the program (if a Concern).

If a new shortcoming appears during the Interim Visit that is not related to a previous shortcoming, use the 3-part construct as described above for a General or Initial Review to cite the shortcoming.

In the following examples, normal text identifies the criterion/policy citation, ***italicized*** text identifies the evidence, and **underlined** text identifies the impact on the program. However, when writing a shortcoming, only use normal text.

***Example (Initial or General Review) – Deficiency, Criterion 1:***This criterion requires that the program have and enforce procedures to ensure and document that students who graduate meet all program requirements. *Review of six transcripts indicated that two recent graduates did not pass all of the required courses designated by the program.* Students can graduate from the program without passing all required courses. Thus, the program is not in compliance with this criterion.

***Example (Initial or General Review) – Weakness, Criterion 2*:** This criterion requires that the program have published program educational objectives that are consistent with the mission of the institution, the needs of the program’s various constituencies, and these criteria. The criteria define program educational objectives as broad statements that describe what graduates are expected to attain within a few years of graduation. *The program educational objectives are not consistent with this definition, inferring abilities associated with student outcomes rather than professional attainment after graduation.* Without appropriate program educational objectives, the graduate attainments may not meet the needs of the program’s constituents. Thus, the program lacks strength of compliance with this criterion.

***Example (Master’s Level) – Weakness, Students and Curriculum:*** This criterion requires that the master’s level engineering program have and enforce policies and procedures ensuring that a program of study with specific educational goals is developed for each student. The master’s level engineering program must also require each student to demonstrate a mastery of a specific field of study or area of professional practice consistent with the master’s program name. *While general guidelines exist for master’s level course sequences students might want to take, some students expressed that their coursework choices were based on whatever sounded interesting and not aligned with any specific educational goals*. Without educational goals and a course of study that aligns with those goals, students will not be prepared to demonstrate mastery of a field of study or professional practice. Thus, the program lacks strength of compliance with this criterion.

***Example (Interim Visit) – Weakness, Criterion 5: (Note the different format)***

**The previous review cited that the major design experience was not clearly based on knowledge and skills acquired in earlier course work. Therefore, the students may not have been adequately prepared for professional practice. Thirty-day due-process information provided by the institution demonstrated that the program had developed strengthened guidelines for the major design experience to more thoroughly incorporate knowledge and skills from prior course work. However, the program did not provide evidence that these changes had been implemented.**

**[Under a sub-section titled “Progress Since Last Review”]. *Review of student work on the major design projects provided evidence that students are incorporating knowledge and skills from earlier course work. However, the major design projects did not consistently incorporate appropriate engineering standards and multiple constraints.* Without adequate experience in application of design constraints and engineering standards, students in the program may not be adequately prepared for engineering practice. Thus, the program lacks strength of compliance with this criterion.**

***Example (Initial or General Review) – Concern, Criterion 8:*** This criterion requires that resources available to the program be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. It further requires that resources available to the program be sufficient to acquire, maintain, and operate infrastructures, facilities, and equipment appropriate for the program. *At present, it appears that resources are adequate to support the program*. However, despite growing enrollment, the institution recently reduced the program’s operating budget. There is therefore a risk that the program may not be able to maintain adequate levels of support for faculty and equipment. Thus, future compliance with this criterion may be jeopardized.

**Multiple Shortcomings within a Single Criterion**

In a case where a program has multiple shortcomings within a single criterion, all are described under the most severe of the shortcomings. Language used to describe the situation should reflect the relevant shortcoming level. However, the language used to conclude the description should be consistent with only one level of shortcoming, the most severe level of the multiple shortcomings identified.

***Multiple Shortcoming Example – Weakness, Criterion 1:*** This criterion requires that student performance be evaluated and that student progress be monitored to foster success in attaining student outcomes, thereby enabling graduates to attain program educational objectives. *Student enrollments have increased, driven by a large percentage of transfer or part-time students. Since most of the core curriculum courses are offered only once per academic year, these students must be carefully advised to ensure that they stay on track to graduate. Review of transcripts indicated multiple instances of students not fulfilling prerequisites prior to enrolling in core classes. No documentation of waivers or equivalent transfer courses was available to indicate that these were decisions made after considering the students specific situation. The program has an advisor who handles advising of transfer students and part-time students. However, with the large number of these type of students, the advisor’s workload does not allow sufficient time to review and take into account each student’s prior record.* Without a careful review of each student’s prior record and an effective process for enforcing prerequisites, students may enroll in advanced courses without demonstrating sufficient mastery of necessary prerequisite knowledge, potentially leading to poor student performance.

This criterion also requires that student progress be monitored to foster success in attaining student outcomes. *The computerized system currently used for course selection enrolls students in their courses for the upcoming term prior to the time they complete the courses in the current term. In some cases, students are taking courses in one term that are prerequisite to those for which they enroll in the following one. Students may not have passed courses that are prerequisite to the ones in which they have pre-enrolled and there is no process in place to notify the students’ advisors when this occurs. Advisors are diligent in their efforts to properly advise students and there were no documented cases of this actually happening.* However, because prerequisite enforcement is not monitored within the automated enrollment system, the potential exists for students to enroll in courses for which they have not passed the prerequisite course.

The lack of an effective process to enforce prerequisite enrollment demonstrates that the program is not sufficiently monitoring student progress for all students; thus strength of compliance with this criterion is lacking.

# **PROGRAM OBSERVATIONS**

**An observation is "a comment or suggestion that does not relate directly to the current accreditation action but is offered to assist the institution in its continuing efforts to improve its programs."** (APPM Section I.E.8.a.(3)). Observations should not address any of the criteria. Otherwise, the observation will either be removed in the editing chain or changed to a shortcoming.

***Example:*** *A program of regularly inviting speakers from industry to the campus to interact with students would enable the students to interact with alumni role models and benefit by learning about possible career paths.*

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| **ADDITIONAL GUIDELINES FOR WRITING STATEMENTS** |
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| * When writing the Exit Statement, refer to E403 Statement Writing Examples and E410 Grammar and Punctuation Guide. * Statements must be clear and based on evidence found by the team to be credible and significant. There must be enough detail in the statement to justify the strength, shortcoming, or observation and to ensure that the program, institution, team chair(s), ABET EAC editors, and future teams know precisely what needs to be addressed. * When citing a shortcoming related to the APPM, the shortcoming should specifically refer to a section of the APPM. A shortcoming for one section of the APPM may be at a different level than a shortcoming for another section of the APPM. * Names of individuals should not be used in any part of the statement. * Programs jointly reviewed by another Commission and the Engineering Accreditation Commission may report different results for a given criteria. Because each Commission has unique General and Program Criteria against which the joint program was examined for compliance, each Commission will report the results of the review in separate Draft and Final Statements to the Institution and will independently determine an action. Normally, the more severe of the actions voted will be the action for the program. * Do not include wording that does not add to or clarify the strength, shortcoming, or observation. * Minimize the use of acronyms or other abbreviations. * Combine descriptions of multiple shortcomings for a single criterion under that criterion. * Do not combine descriptions of shortcomings for multiple criteria. * Do not prescribe actions that may resolve a shortcoming. * If an observation is listed, ensure that the observation is not related to any of the Criterion. * If multiple programs have the same shortcoming, similar verbiage should be used for   describing the shortcoming in all programs. |

**EXAMPLE EXIT STATEMENT**

Introduction

The Widget Engineering (BS) program is the oldest and largest engineering program in the college. The program is administered by the Department of Widget Engineering. The program has 224 students, 20 faculty members, four adjunct faculty members, and two professional staff members who advise students from their sophomore year through graduation. The program produced 47 graduates in the 2019-20 academic year.

Program Strengths

1. Several faculty members have published textbooks that are widely used in widget engineering curricula across the country. The faculty also demonstrates significant engagement in contemporary teaching methods in the classroom. Multimedia presentations are common in the widget engineering courses. These various teaching strategies enhance learning opportunities for all students since students have different learning styles.

2. The program has a large endowment that provides discretionary funds for curriculum and research development both for department faculty members and for visiting scholars. A portion of this endowment has been used to support the undergraduate research program through the purchase of research equipment and for financial support of the student and faculty participants. This endowment has contributed to student participation in research.

Program Weaknesses

1. Criterion 2. Program Educational Objectives. This criterion requires the program to have published program educational objectives that are consistent with the mission of the institution, the needs of the program’s various constituencies, and the engineering accreditation criteria. It further requires that there be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program’s constituents’ needs, and the engineering accreditation criteria. It was not clear from the documentation provided that the program educational objectives are consistent with the needs of the constituencies of the program. The program lists its students, faculty, industrial advisory board, major employers, and alumni as constituencies. There is no evidence that any of these groups, aside from the faculty members, participated in the periodic review of the program educational objectives. Without involvement on the part of all the program constituents in reviewing the program educational objectives, the program is unable to ensure its program educational objectives are consistent with the needs of its various constituencies. Thus, strength of compliance with this criterion is lacking.

2. Accreditation Policy and Procedure Manual. The Accreditation Policy and Procedure Manual (APPM) Section I.A.4 requires that programs represent their accreditation status accurately and without ambiguity. The statement on the departmental website is inconsistent with that contained in Section I.A.6 of the APPM and is associated with multiple programs offered by the department that are not accredited by the EAC. Review of the current university catalog indicates that publication of accreditation status found in that document is in compliance with Section I.A.6. By not appropriately and consistently identifying the accreditation status of the program in all of its publications as accredited by the EAC of ABET as required by the APPM, the program is unable to clearly represent its accreditation status accurately and without ambiguity. Thus, strength of compliance with this policy is lacking.

Program Concern

* Criterion 8. Institutional Support. This criterion requires that resources must be sufficient to acquire, maintain, and operate infrastructures, facilities, and equipment appropriate for the program. Equipment maintenance and modernization do not appear to be accomplished on a routine and proactive basis. As a result, laboratory facilities are not always functional. Students often work in laboratory teams that may be too large for each student to have a consistently meaningful hands-on learning experience. Although it appears that the criterion is currently satisfied, there is the potential that laboratory facilities may degrade so that future compliance with the criterion may be jeopardized.

This concludes the exit statement for the Widget Engineering Program.