

Pre-Visit Preparation for ETAC PEVs (for 2021-2022 Cycle)

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A. ETAC Leadership

ETAC Adjunct Accreditation Director

- Frank Hart

ETAC Executive Committee Officers

- Past Chair – Scott Danielson
- Chair – April Cheung
- Chair Elect - Carol Schulte
- Vice-Chair, Operations – Raju Dandu

ETAC Executive Committee Members-at-Large

- Harrie Stevens
- Martin Reed
- Mark Lower
- Venancio Fuentes

ETAC Public Member

- Steven Browning

ABET Board Liaison Representative

1. Lorraine Kapka

B. Criteria and Forms

A complete summary of changes in criteria and in policies and procedures can be found on the Accreditation Changes page (<https://www.abet.org/accreditation/accreditation-criteria/accreditation-changes/>). Be sure to review all the changes and use the most updated T351 PEV Report to complete your pre-visit tasks.

Important: Be sure to download and use the forms in the current PEV Workbook for your visit this fall! Download the workbook via the ABET website as soon as you receive your assignment. Pertinent changes needed for your visit will be found in the current workbook.

Please review the definitions in the first section of the *2021-2022 Criteria for Accrediting Engineering Technology Programs*. As a PEV, it is imperative that you understand and can explain these definitions to program personnel if you find shortcomings related to those criteria.

Also, be familiar with ABET's definitions of findings as outlined in the *2021-2022 A001 Accreditation Policy and Procedure Manual section I.E.8.a.(2) Findings of shortcomings*.

This document provides only ETAC related information. Issues common to all commissions are included in the Brightspace PEV training Module 1 and Module 2.

Before Visit Preparation

The program's Self-Study Report (SSR) is available online through the AMS system. Contact your team chair if you are unable to download the SSR.

You should provide your team chair with a list of any issues you find prior to the visit since many shortcomings can be resolved quickly if the program is made aware of the issues and has time to address them.

1. Review transcripts using the transcript analysis table in the T351, PEV Report, under Criterion 1. The flowchart of prerequisites under Criterion 5 of the SSR helps complete the transcript analyses.
2. Review the program website to check compliance with APPM requirements of posting of enrollment and graduation data, PEOs, SOs, and correct ABET statement of accreditation reference. Contact your team chair immediately if you see issues.
3. Review the Self-Study Report and complete the T351. Be prepared to submit these documents to your team chair ahead of the visit. Be sure to complete the previsit quality ratings found near the end of the T351.
4. Complete the program introduction in the Program Audit Tool. Follow the instructions in T213 Program Introduction Template, included your PEV Workbook.
5. Previously, all pre-visit communications were required to be routed through the team chair. ETAC policy has changed to allow an alternative approach at the team chair's discretion, so you may be authorized to directly contact the program head before the visit. If so authorized, you must copy your team chair on all communications with the program. Contact your team chair if you are unable to contact the program head directly, should you be authorized to do so. **DO NOT contact the program directly until your Team Chair has authorized you to do so.**
6. Provide a copy of the T351 to the team chair at least two weeks prior to the site visit or by the due date set by your team chair.
7. Complete the ABET PEV pre-visit online training at least two weeks before the visit. The training is available online through Brightspace (D2L). You may take the quiz three times. Your team chair will be notified when you complete the training and will be able to view your highest quiz grade.
8. Review the training videos and addendum in the Training folder of the PEV Workbook.

After the visit, please help ETAC improve by completing the online evaluations of the team chair and other PEVs on AMS.

Program Audit Tool and Program Audit Form on AMS

The Program Audit Tool (PAT) is the tool in AMS where PEVs write the program introduction and provide detailed descriptions of any shortcomings. Once completed, this tool generate two documents: The Program Audit Form (PAF) which summarizes the visit team's assessment of the program and the Exit Statement (ES).

Follow the instructions in T213 Program Introduction Template to write the program introduction.

Follow the T302 Sample Program Audit Form to write the detailed descriptions of any shortcomings. When quoting the criterion, use the exact wording from the 2021-2022 ETAC Criteria (T001), not the T351 evaluation elements. It is very important to describe the negative impact on the program on any shortcomings.

Strength and Observation statements flow from the PAT to the Exit Statement and then to the Draft Statement. They do not flow to the PAF. Only Deficiencies, Weaknesses, and Concerns statements flow from the PAT to the PAF. In ETAC, use the Exit Statement at the Exit meeting but do not read the program description.

T351 PEV Report

The Comment column in this form **must** briefly explain the final quality rating agreed upon by the team. Comment should also be completed for satisfactory ratings. The Comment column in the Summary page should also be filled out to reflect the reason(s) behind the team's degree of criteria compliance decisions.

C. Recent Changes to Criteria and Issues Arising during Recent Accreditation Reviews

The following is based on issues found in recent statements and addresses criteria or policies where inconsistencies or misinterpretations have most often occurred.

Changes this cycle (2021-2022)

Review changes to this cycle at this link: <https://www.abet.org/accreditation/accreditation-criteria/accreditation-changes/>

Discuss any changes with your team and team chair, so that you understand the extent of the changes.

General Comments on Findings

The degree of compliance of a shortcoming usually falls on the team's judgment regarding how well the overall criterion (not just a small piece of it) has been satisfied. The team should come to a consensus based on the evidence observed. The team chair may have additional information from ETAC, follow guidance from the team chair during team discussions for team consensus.

Criterion 1 – Students

It is critical that you review student transcripts well ahead of the visit and provide your team chair with any shortcomings found before the visit. If programs are made aware of additional information needed, some shortcomings may be resolved prior to the visit.

1. Please note that there is no requirement in the criteria that students must have taken all prerequisites before taking a course. However, there are implied requirements that institutions follow their own rules. This means that if a course exception is made (prerequisite or course substitution), it must be justifiable and be documented according to the institution's process (usually, this includes a written notice to the Registrar).
2. When there is a finding, information regarding the extend of the issue should be noted. E.g. how many of the transcript reviewed had the issue.

Criterion 2 – Program Educational Objectives

The primary findings stemming from this criterion are summarized here.

1. Programs do not have a documented process for the periodic review of the PEOs or evidence of such reviews. A shortcoming should be written.
2. The involvement of stated **key** program constituencies (as per the program's self-study or other venues) is lacking for the periodic review of the program educational objectives. In many cases, programs create an exhaustive list of constituencies that make it difficult to have documentation of those constituencies being involved in the periodic review of the program educational objectives. We require programs to identify the **key constituencies** they feel are the most influential in program development. The key constituencies chosen to be involved in the PEO reviews should be included in the documented review process and stated in the SSR. There must be documentation showing that key constituencies are involved in the periodic review of the program educational objectives. Depending on the lack of compliance, a shortcoming should be written.
 - a. In the evidence for this type of finding, describe the key constituencies involved in the process and who were identified and were not involved. This provides the reader a sense on the extent of the issue.
 - b. If not all the key constituencies are involved in the review process and the PEO's wording does not match the criterion's definition (e.g., it read like an outcome), this one finding should address **both** issues. The PEOs' wording are part of the evidence of not following a review process.
3. The specific wording or nature of the program educational objectives should not be the focus of a PEV. **If the program educational objectives have been created via a documented process**, a presumption of the appropriateness of the program educational objective is recommended. For instance, if program educational objectives seem to be very similar to student outcomes, or very similar PEOs among various programs, ETAC's position has been to write an Observation recommending that the program educational objectives be re-written to better align with ABET's definition.
4. If a good PEO review process has not been followed/documented AND the nature of the program educational objective's wording does not match the criterion's definition, (e.g., it reads like an outcome) the finding should address both issues. Documentation means that written evidence (meeting minutes, etc.) is available that shows the involvement of the program's key constituencies in the review. Systematic and periodic means that the review has occurred on a regular basis (annual, semester, etc.). Lacking any of these elements, a shortcoming should be written.
5. If advisory committees are not involved in the review process of the PEO, the PEV should investigate what other key program constituencies are involved in the review process and if there is a documented, systematically utilized, and effective process. Criterion 5 also include advisory committees' periodically review the program's educational objectives and curriculum.

Criterion 3 – Student Outcomes

Note that ETAC does not require that a program use the literal wording of the Criterion 3 student outcomes. However, regardless of how the program expresses its student outcomes, the program must demonstrate that its student outcomes address all listed **elements** in Criterion 3 [now items 1 – 5]. Such demonstration may be done via a matrix or other illustrative device that shows the correlation between the program's student outcomes and ABET's Criterion 3 **elements**.

1. Examine if the all ABET Criterion 3 elements are included in the program's students outcomes.
2. If not all the elements are included, identify them in the finding description. This illustrate the severity level of the issue to the reader.
3. Do not intermingle this finding with Criterion 4.

Criterion 4 – Continuous Improvement

This criterion is often a source of findings. While the statement of the criterion is concise, it has complexity that deserves careful thought and attention both before and during a visit. The points below should help you navigate these issues.

1. The intent of this criterion is to ensure that the program is doing continuous improvement. So, the program is required to (1) have processes in place to assess and evaluate how well students achieve their own student outcomes, and (2) have processes in place to use the results of evaluations to improve the program. The processes and the results of these processes must be both appropriate and documented.
2. While there is no explicit mention of the manner in which assessment must be carried out, the definition of assessment (in the preface of the ETAC criteria document) indicates that “effective assessment uses relevant direct, indirect, quantitative and qualitative measures as appropriate to the outcome being measured.” So, if a program only uses a few surveys, one examination, or one class to accomplish all its assessment activities, it would be reasonable and supportable to write a finding focused on the lack of appropriate and effective assessment.
3. In some cases, the program may be making changes for improvement unrelated to student outcome assessment and evaluation process results. If there is no indication that the evaluation results are systematically utilized as input for the continuous improvement of the program, there is a Criterion 4 shortcoming. The criterion states: “Other available information may also be used to assist in the continuous improvement of the program.” So, any improvement to the program outside the formal assessment and evaluation process is acceptable and encouraged. A finding occurs when assessment and evaluation processes do not lead to any attempt at program improvements. When writing this type of finding, evidence should also indicate that what other improvement effort had taken place and what hadn't taken place to illustrate the extent of the issue.
4. In some cases, the program may have student outcome assessment and evaluation process results. If the program use a very low benchmark to justify the lack of continuous improvement action, it is the visit team's responsibility to determine whether the program's continuous improvement process is appropriate. The written evidence should be clearly identify the program's continuous improvement methodology.
5. It is the program's responsibility to collect assessment data and to evaluate those data to draw its conclusions about student achievement and related improvement actions. If the program has not done this, then a finding should be written. It is the PEV's responsibility to determine whether the program's process for demonstrating achievement is credible and reliable and is meeting the criterion's requirements that the process is appropriate and documented.
6. An appropriate assessment process should involve the use of direct assessment methods. Survey data are indirect evidence, while assessments via rubrics or other data collection mechanisms based on student project work, exams, homework or laboratory

work are direct evidence. Direct measures of student performance should be provided by the institution, along with samples of related student work.

7. All official student outcomes, as published on the program's website, are required to be assessed. If the program has adopted the new 1-5 student outcomes but has not updated the website, there is an APPM finding. If the program is in transition to the new 1-5 student outcomes and the official student outcomes as published on the website are the old a-i or a-k, then assessments and evaluations of these published student outcomes are required. Some programs have more student outcomes than those required by Criterion 3 elements 1 - 5. This is not a problem and is encouraged in order to define better what students must learn in the program of study. If these are included in the officially published student outcomes, then they must be assessed under Criterion 4.
8. Some required elements for student outcomes have multiple components. For example, Criterion 3.B.(3) element states:

“an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature.”

The PEV should be looking for, at the least, evidence of assessment of

- Student written work
 - Student oral presentations
 - Use of graphics in communication
 - Use of appropriate technical literature
9. It is not required that students must achieve all the student outcomes to satisfy the criterion, only that the extent of achievement of student outcomes is determined. It is expected that an evaluative process is established to identify actions for improvement of the program. This can be based on un-met student outcomes based on benchmarks, or if all student outcomes meet the benchmarks, we still expect continuous improvement actions based on evaluation results.
 10. Program improvements as defined by Criterion 4 are not required to be in the course used for the SO assessment. For example, a required prerequisite may be added to ensure students are prepared to accomplish what is required in the course with the assessment tool.
 11. Do not mingle a criterion 3 finding in this criterion. If a program missed an element in Criterion 3 in their student outcome and have an appropriate process, followed the process, implemented continuous improvement actions, there is no finding. Therefore, do not refer to criterion 3 in finding related to this criterion.

Criterion 5 – Curriculum

The primary areas of findings from this criterion come from the mathematics portion, technical content, or the advisory committee portions of the criterion.

1. Discipline specific content (technical content) must represent at least one-third, but no more than two-thirds of the total credit hours for the program. Table 5.1 of the SSR is helpful in determining compliance with this criterion. The definition of “technical” and “non-technical” content falls on the team’s judgment based on the evidence provided by the program.

2. Technical content must prepare students for increasingly complex technical specialties in the curriculum and develop student competency in the discipline. The degree of compliance of this finding usually falls on the team's judgment regarding how well the overall criterion (not just a small piece of it) has been satisfied. Note that the prefix of the course (MET 123, for example) is not the sole determinant as to whether a course is technical or non-technical. It is the content of the course that determines if the course has discipline-specific content.
3. Recent major changes to this criterion are requirements that the curriculum includes and demonstrates topics related to commitment to professional and ethical responsibilities, diversity and inclusion awareness, quality, continuous improvement, and preparation for career, further study, and lifelong professional development. The program must demonstrate that students are exposed to the topic. Student work, lecture presentations, or assignment sheets can be considered as evidence for topic coverage.
4. ETAC requires programs to have an advisory committee that periodically reviews the program's educational objectives and curriculum. They must provide advisement on current and future aspects of the technical fields for which the graduates are being prepared. The advisory committee must be one of the key constituencies that review the program educational objectives in Criterion 2. Advisory committee meeting minutes are a common way programs demonstrate compliance with this criterion section.

Criterion 6 – Faculty

Common areas for recent findings are inadequate resources for, or lack of evidence of, continuing professional development and/or insufficient numbers of faculty serving in the program which impact students' ability to succeed in the program.

1. As always, make sure to provide clear evidence related to the impact on the program in such findings.
2. Check the Program Criteria (See RFE for assigned program criteria) to determine if there is specificity to faculty requirements.

Criterion 7 – Facilities

1. The criterion indicates that the library services and computing/information infrastructure must be adequate to support the scholarly and professional activities of the students and faculty. For instance, if appropriate industry and engineering standards and codes are not available for the students, that situation could become a Criterion 7 shortcoming.
2. Safety - The issue of safety in relation to practices like use of personal protective equipment (PPE), proper clothing, or other safety practices in the use of equipment or laboratories could be written as a shortcoming based on the criterion's language of "Students must be provided appropriate guidance regarding the use of the tools, equipment, computing resources, and laboratories available to the program." Facility safety-related shortcomings should be cited under APPM I.E.5.b.(1) "Facilities – to assure the instructional and learning environments are adequate and are safe for the intended purposes."

Criterion 8 – Institutional Support

1. Institutional support includes administration leadership and adequate resources to support the program, both financial and personnel.
2. A finding in this criterion should be based on the negative effect it has on the program. Do not be prescriptive on how the program should resolve the finding. For example, do not write findings that require a program to hire additional personnel (e.g., program support staff); write the finding based on what is not being accomplished, and let the institution decide whether to resolve it with additional personnel or by other means.

Program Criteria

1. PEVs must see if the program has satisfied Program Criteria requirements in addition to the requirements in Criteria 1 through 8. The Program Criteria under which you will be evaluating the program can be found in the RFE located in the AMS. Be sure to complete the Program Criteria section which follows Criterion 8 in the T351.
2. If a program, by virtue of its title, becomes subject to two or more sets of Program Criteria, then that program must satisfy each set of Program Criteria; however, overlapping requirements need to be satisfied only once. If there are no Program Criteria, only use the General Criteria. In some cases, this situation may lead to two program evaluators evaluating the same program.
3. Any program criteria elements that have been adopted as published student outcomes (related to Criterion 3 requirements) must be subjected to Criterion 4 processes for assessment and evaluation as input into continuous improvement actions.
4. Program criteria elements that are not embedded in published student outcomes must be demonstrated as addressed in the curriculum. If the program cannot demonstrate that it has adequately addressed the requirements of the applicable Program Criteria in its curriculum, then any resulting finding should be written as a Program Criteria finding.

D. ABET Policy and Procedures (APPM) Issues

Name of the Program

The program name shown on the student transcripts must be the same as on the Request for Evaluation (RFE). The RFE is available to PEVs on the ABET AMS system. If the names do not match, contact the team chair immediately so that it can be investigated.

Modes and Locations of Instruction

Check for any online and off-campus or remote offerings of the program. If a student can take a significant amount of technical courses at sites in different modalities, e.g., face-to-face at places other than at the home campus or online including via the internet, and if there appears to be an issue of this sort, contact the team chair immediately so that it can be investigated. The visit schedule may be adjusted due to issues of this sort if enough time before the visit is given to the program. Let the team chair be made aware of any potential problems of this sort as soon as possible.

APPM requirements that may lead to findings

Much of the information required in the APPM should be published on the program's website. Review the program's website ahead of time and contact the team chair as soon as possible if

potential issues are discovered. These issues can likely be addressed/resolved prior to the visit. Below is a list of the most common issues:

- I.A.4.a. Use of the same name for an accredited program and a non-accredited program is not permitted.
- I.A.4.b. When a formerly accredited program is no longer accredited, the program's accreditation designation must be removed from all electronic and print publications.
- I.A.6. Institution catalogs and similar electronic or print publications must identify accredited programs as "accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org."
 - I.A.6.a. Accredited programs must publicly state their program educational objectives and student outcomes. A shortcoming can be written if the information is extremely difficult to locate by the public, or the information has not been updated.
 - I.A.6.b. Accredited programs must publicly post annual student enrollment and graduation data per program. A shortcoming can be written if the information is extremely difficult to locate by the public, or the data has not been updated within a reasonable time.
- I.C.4.b. Program name must be shown consistently on transcripts, all publications, and the RFE.
- I.C.4.c. All program criteria for any implied program specialization must be satisfied.
- I.E.1. All paths to completion of the program must satisfy the appropriate criteria. This includes remote locations.
- I.E.5.b.(1) [Examine] Facilities – to assure the instructional learning environments are adequate and are safe for intended purposes. Neither ABET nor its representatives offer opinions as to whether, or certify that, the institution's facilities comply with any or all applicable rules or regulations pertaining to: fire, safety, building, and health codes, or consensus standards and recognized best practices for safety.
- I.E.5.b.(2) [Examine] Materials – Evaluators will review materials sufficient to document that the program is in compliance with the applicable criteria and policies: Much of this information should be incorporated into the Self –Study Report; additional evidence of program compliance may be made available to evaluators **prior to** and during the visit, using an online storage location. The program should make the following on-site materials available to the team during the visit, without duplicating materials provided in the Self-Study Report.
 - Representative examples of graded student work including, when applicable, major design or capstone projects
 - Materials addressing issues arising from the team's review of the Self-Study Report or online instructional materials
 - Documentation of actions taken by the program after submission of Self-Study Report as being available for review during the visit
 - Materials necessary for the program to demonstrate compliance with the criteria and policies
- Note: this criteria do not require display of text books.