**ABET**

***Applied and Natural Science Accreditation Commission***

# Program Evaluator Manual

# of

# Evaluation Process

Applied and Natural Science Accreditation Commission

ABET

415 North Charles Street

Baltimore, MD 21201

Telephone: 410-347-7700

Fax: 410-625-2238

E-mail: accreditation@abet.org

Website: https://www.abet.org

Manual of Evaluation Process

Foreword

Welcome to the challenge of participating as a member of an Applied and Natural Science Accreditation Commission team that will conduct an ANSAC review. Your role is one of significant responsibility and importance to the institution you will review, the professional society you represent, and to the greater professional community as a whole.

As a team member, you are expected to provide knowledge concerning a specific practice, area, professional education, and continuous quality improvement. Your commitment is critical to a successful review of your particular program and the overall team outcomes. A thorough program review involves careful pre-review preparation, strong documentation and evidence examination, analysis and communication skills, sound judgment, and the ability to develop and communicate succinct conclusions.

You will be expected to develop a qualitative and, where applicable, quantitative understanding of the following:

* Institution’s mission
* Individual program’s educational objectives
* Extent to which the needs of the program’s various constituencies are used to determine and periodically evaluate the educational objectives
* Extent to which there is a system of ongoing evaluation that demonstrates achievement of the educational objectives and uses the results to improve the effectiveness of the program
* Specific program outcomes for each program and the processes in place to realize these outcomes
* Extent to which outcomes are being assessed
* Extent to which results of outcomes assessment and processes are being used to improve programs continuously
* Extent to which there is an integrated system in place to meet the accreditation requirements

Team members are expected to maintain a full sense of responsibility to the welfare of the institution, to the Applied and Natural Science Accreditation Commission (ANSAC) and the Accreditation Board for Engineering and Technology (ABET), and to the profession. Evaluators must be prepared to give considerable time and effort to their task, but can expect to find the activity a challenging, stimulating, and rewarding experience.

**I. INTRODUCTION**

The purpose of this manual is to provide a process that may be helpful to individuals who participate as members of evaluation teams representing the ANSAC of ABET and the professional societies. The applicable criteria, *Criteria for Accrediting Applied and Natural Science Programs*, are published in several places, including the current ABET Accreditation Yearbook and the ABET website on the Internet. In addition to the general criteria, this document contains program criteria to be used in the evaluation of specific programs. Program criteria are initiated by the Member Societies that have curricular responsibilities for those programs and are ratified by the ANSAC and by the ABET Board of Delegates in the same manner as are general applied and natural science related criteria. Program evaluators must be familiar with the current version of the criteria in effect for the review.

A program in a curricular area covered by approved program criteria must be in compliance with both the general criteria and the specific program criteria in order to be accredited.

The guiding principle of the ANSAC Criteria and this process is to assure that graduates of an accredited program are prepared to enter their field of *practice*. In addition, the Applied and Natural Science Accreditation Commission expects the Criteria and this process to stimulate the improvement of educational outcomes and encourage new and innovative approaches to applied and natural science related education.

**II. PREPARATION FOR AN ACCREDITATION REVIEW BY ANSAC OF ABET**

1. ABET Headquarters receives requests for information from institutions seeking accreditation at various times throughout the year. In response to such requests, headquarters directs institutions to ABET’s website to obtain copies of the Criteria for Accrediting Applied and Natural Science Programs, Accreditation Policy and Procedure Manual, a copy of the Self-Study Questionnaire for each program to be reviewed and other appropriate information as necessary such as a fee schedule and Request for Evaluation forms.
2. Preparation of Documents for the Evaluation
3. Documents to be submitted by the institution to ABET headquarters -- due January 31:
4. Request for Evaluation;
5. A copy of a student transcript for each program to be reviewed.
6. Documents to be submitted by the institution on the ABET AMS (Accreditation Management System) website:
7. The Self-Study Report for the program that the team member will be responsible for evaluating.
8. Latest institutional catalog and promotional material.
9. Such other descriptive material about the applied and natural science programs as deemed appropriate by the institution.
10. Student transcripts as requested by the team chair to be sent separately.
11. Documents to be made available for the review. The responsible faculty member in each instructional area must assemble the following materials for inspection by team members:
12. Representative samples of examination statements, student examination papers and samples of homework in each course, to include work graded from poor to good.
13. Samples of laboratory instructions and students’ laboratory reports in each course to include work graded from poor to good.
14. Assessment materials along with evaluation of results.

The above materials should be made conveniently accessible for examination by the evaluation team. Note: The 2024-2025 APPM I.E.5.b. on display materials does not require textbooks.

1. Documents to be made available upon request:
2. Budgets for the current year for the college and individual programs
3. Minutes of faculty meetings during the last year
4. Reports of major units to the dean or president
5. Recent self-studies of major units or the entire institution
6. Reports submitted to regional accrediting agencies
7. Reports of evaluations received from regional accrediting agencies
8. Summary of number of classes of various sizes
9. Additional transcripts for students enrolled in programs under review
10. The team chair may request specific additional material, based on the review of the completed Self-Study Questionnaire and the circumstances of the review.
11. Forms and publications needed for the review are provided to the team chair from ABET headquarters via ABET’s website.

**III. REVIEW PROCESS**

The process of conducting a review has three basic elements: (a) pre-review activity, (b) the scheduled review, and (c) post-review activity. Success of the overall process depends on comprehension, timeliness, and professional completion of each of these elements and the integration of the parts into a seamless series of activities. Process improvement is based on identification of objectives, outcome assessment, and a consistent feedback process.

Key inputs to the process are provided by (a) the ANSAC, which selects a Team Chair, (b) the professional societies, which provide qualified Program Evaluators, and (c) the institution, which supplies self-study documentation and other information that demonstrate that each program meets the general and program criteria for ANSAC.

1. **Pre-Review Activity**

Pre-review activities are conducted prior to virtual meetings with the institution during the scheduled review, beginning with the selection of the Team Chair.

**A.1 Objectives**

The objectives of the pre-review activity are threefold:

1. Assemble a team that is a balanced representation of the profession and able to accurately assess the quality of the programs to be reviewed;
2. Complete a substantial portion of the assessment prior to the scheduled review, based on materials furnished by the institution;
3. Develop a plan for additional assessment to be conducted during the review and requests for additional material to be provided by the institution.

**A.2 Process Participants**

Key participants in the process are the Team Chair, Program Evaluators, the institution, and to a lesser extent, any Observers who may participate in the review as mutually agreed by the institution and the Team Chair.

**A.3 Process -- Significant Events for Accreditation Actions**

|  |  |  |
| --- | --- | --- |
| Year | Date | Action |
| 2023 | Mid-April-June | Assignment of Team Chair and formation of team. (Subject to approval by institution seeking accreditation) |
|  | By June 1 | Team Chair obtains institution seeking accreditation approval of Team. Review date established. |
|  | By July 1 | Self-Study Questionnaire due from institution seeking accreditation. (With institution’s catalog) |
|  | By July 1 | Institution seeking accreditation sends Questionnaire, IV or IR Report, catalog, transcripts, and other requested materials to team members. |
|  | Sept. to Dec. | Review is conducted. (date of scheduled review) |
|  | Review  Review + 7 days | Team members submit reports and proposed draft statements to Team Chair.  Team Chair submits the Draft Statement to Editor 1, ANSAC Chair and Headquarters Office using the Draft and Final Statement Editing Tool on the ABET AMS website. |
|  | Institutional Response – Review + 7 days | Institutional response to Exit Interview Statements and Program Audit Forms including Explanation of Shortcomings |
|  |  |  |
|  | Review + 30 days | Team Chair submits updated proposed Draft Statement electronically to Editor 1, ANSAC Chair, and Headquarters Office. |

|  |  |  |
| --- | --- | --- |
| Year | Date | Action |
| 2024 | Review + 60 days | Editor 1 submits edited proposed Draft Statement to ANSAC Chair in the Draft and Final Statement Editing Tool. |
|  | Review + 70 days | Headquarters Office (through ANSAC Chair) sends Draft Statement to the Institution seeking accreditation, with copies to Team Chair, Editor 1, and ANSAC Chair. |
|  | Review + 100 days | Institution seeking accreditation submits response to Draft Statement to the Team Chair, Editor 1, ANSAC Chair, and Headquarters Office. |
|  | Review + 115 days | Team Chair, after consultation with team members if needed, submits proposed Final Statement. |
|  | Review + 120 days | Editor 1 submits Edited Final Statement to ANSAC Chair. |
|  | Review +130 days | ANSAC Chair submits final revised Statement. |
|  | Before ANSAC Meeting | Headquarters Office prepares materials for meeting. (Proposed Final Statement to the Institution for Blue Books) |
|  | July \_\_ | ANSAC Annual Meeting;  ANSAC takes accreditation action and develops Final Statement to the Institution to be transmitted to Institution seeking accreditation. |
|  | Aug-Sept | Headquarters Office sends the Institution seeking accreditation an accreditation letter (signed by the President of ABET) and final version of Statement to the Institution. |
|  | Within 30 days | Institution seeking accreditation may appeal "Not to Accredit" action. |
|  | Sept 30 | Accreditation action takes effect. |

1. **Scheduled Review Activity**

Scheduled review activity begins with the initial meeting with the institution during the course of the review, and this segment of the evaluation process ends when the exit meeting has been completed.

**B.1 Objectives**

The objectives of the scheduled review are threefold:

1. Make a qualitative assessment of factors that cannot be documented in a written questionnaire.
2. Conduct a detailed examination of materials compiled by the institution.
3. Provide the Institution with a preliminary assessment of its shortcomings and strengths if applicable.

**B.2 Process Participants**

Key participants in the scheduled review are (a) the team members -- including the Team Chair, Program Evaluators, and Observers if applicable, (b) representatives of the Institution -- including the institution administration, unit administration, program faculties, support unit faculty, and staff, and (c) the students.

**B.3 Process**

The scheduled review process must be implemented as a set of well-integrated activities.

For clarity, it is described as a narrative of typically scheduled events on a day-by-day basis. Times shown for individual events are examples and may be adjusted to meet the needs of each review and program.

# C. Typical Schedule for an Evaluation Team

A minimum of two full days (typically Monday and Tuesday of scheduled review week) should be allowed for a review, and it is preferable to allocate a portion of a third day (Sunday afternoon) as well. Adding Sunday afternoon to the review significantly reduces the workload and schedule complexity on the following two days, but requires close coordination with the institution.

Even with a small institution, it appears undesirable to try to accomplish a review in less than two working days. With even the largest institutions, proper organization of the team’s work normally makes it possible to accomplish the objective in two and one-half days. The review usually terminates late in the afternoon of the second full day.

A typical review schedule is given below. Exceptions to this schedule are made to accommodate special institutional circumstances.

1. *Afternoon or Evening Prior to Scheduled Review (Day 0)*

If an early start to the review is planned, typical activities on the afternoon of Day 0 include a virtual tour of the program facilities via videos that are made available by the program and the review of course work through the platform that is provided by the program.

Later in the afternoon of Day 0, or in the early evening if the facility and coursework review is scheduled for the afternoon, it is important that the chair of the evaluation team conduct a full team meeting. It is especially important that this initial meeting, scheduled to occur prior to the first full day of the review, be attended by all team members. At the initial meeting, the chair should review with the members of the team the final statement that was sent to the institution as a result of the last visit.

The chair should impress on the team at this first meeting that, while individual members have primary responsibility for observation of a specific program, the report will be from the team as a whole and not a series of individual recommendations.

After reviewing the previous actions, the chair should outline the procedure for the review and make, or review, assignments of specific tasks to the members of the evaluation team. An assignment should be made for service departments (such as mathematics, physics, and chemistry), other physical sciences (such as geology and metallurgy), applied and natural science related areas (if they are not included within one of the major applied and natural science related departments), the library, computer center, or the humanities and social sciences stem, etc. The list of service departments will vary somewhat with the type of institution and the nature of the programs being evaluated. Meeting with the president of the institution and other administrators are most typically made by the team chair, but frequently other team members are enlisted to interview individuals with specific administrative functions.

Administration is usually discussed by the full team, but it is generally the responsibility of the team chair to prepare the section of the report dealing with the administration.

During the initial meeting, the evaluator assigned to each program is expected to give the team chair copies of transcript evaluations, faculty analysis, and curriculum analysis for that program. Each evaluator is also asked to give a tentative accreditation recommendation based on only the written materials. Some attempt is made to identify areas of common findings among team members to set the groundwork for determinations of consistency. Team discussion may involve the kinds of information evaluators will be seeking during the review that might change their tentative accreditation recommendation. Questions to be asked in the first meeting with the dean should be determined at this time.

2. *The Morning of the First Day (Day 1)*

It is usually desirable for the full team to meet with the dean or the chief administrative office of the programs at the start of the review. The meeting with the dean may, or may not, include program directors or other administrators. This full team meeting is an excellent time for the institution to present information pertinent to the institution and to answer questions of general interest. Due to the program area responsibilities of the evaluators, the full team meeting should be limited to about one hour.

At this meeting, schedules for the various team members to meet with the appropriate program-related and service departments should be prepared, if they have not already been arranged. Individual team members should leave the meeting by the middle of the morning and proceed with their own assignments.

3. *Luncheon Meeting on the First Day (Day 1)*

The traditional luncheon meeting that is hosted by the institution and often involves key members of the institution’s academic and administrative staff is replaced with a virtual meeting scheduled during the day. Other participants may include members of the Industrial Advisory Committee.

4. *Afternoon of the First Day (Day 1)*

Each team member will proceed with his or her own individual assignments.

5. *Evening of the First Day (Day1)*

The team, as a whole, should meet virtually as before, at or before dinner. The discussion at this meeting is very important. At this time, each team member should review the findings made with the other members of the team and come to tentative conclusions as to recommendations for accreditation. The members should discuss the weaknesses they have found and the strengths discovered, and crosscheck with the other members. When a team member finds unusual conditions in one particular area, the team chair may wish to have at least one other member of the team join that member on the following morning to crosscheck particular conditions.

Evaluators will be asked how they plan to spend the next morning in order to complete their evaluations.

When an evaluation team is large, this meeting can become very difficult. Evaluators must listen carefully to other team members and be prepared to endorse their descriptions rather than reiterate similar comments themselves. When the team is small, the meeting format can be more informal.

6. *Morning of the Second Day (Day 2)*

Team members should complete work on their particular assignments prior to noon of the second day. Crosschecking of other areas is accomplished as discussed during the previous evening’s meeting.

Meetings between the respective program evaluators and program chairs, and between the Dean and the Team Chair, are typically conducted late in the morning with the objective of providing those institutional officials with advance notice of any issues likely to be identified at the exit interview in the afternoon. The expectation is that there will be no surprises for the program chair(s) and the Dean during the exit interview, especially if the issue is one where the President or CEO might turn to either the Dean or the program chair during the meeting and request a comment.

7. *Team Meeting on the Second Day (Day 2)*

The team reassembles in executive session for a virtual meeting before the exit interview on the second day. The exact conduct of the meeting is at the discretion of the team chair and is dependent on the size of the team and the nature of the problems encountered. Although recommendations will not be mentioned in the exit interview, program strengths and weaknesses must be summarized at this time. The team chair will want each evaluator who speaks at the exit interview to prepare, for the chair, a copy of the scripts that he or she will use at that meeting.

Efforts should be made to reach agreement between all team members on accreditation recommendations for all of the programs being evaluated. Although an evaluator responsible for evaluating one program may feel unqualified to give a recommendation on any other program, information gained from the team discussion can be used to develop a consistent assessment of each program’s compliance with the ABET criteria. Ideally, consensus will be achieved during the team virtual meeting with regard to all program recommendations. If existing differences can be resolved with information available, attempts should be made to resolve those differences. When differences cannot be resolved, the points of difference should be clearly understood by all team members. A team that reaches consensus is much more apt to have its recommendations upheld by the ANSAC.

The team chair will want to complete this meeting with an agreement of each program evaluator’s recommendation for accreditation.

8. *Afternoon of the Second Day (Day 2)*

The entire evaluation team meets with the dean, the president, and other administration officials in the exit interview, for the following purposes:

1. to review the findings of the team, and
2. to report observations of program strengths and weaknesses.

It is quite important at this point that the chair and the team state only facts and observations as found and verified.

Team members are to complete a draft of their report before the exit interview. Because of the limited time to accomplish all procedures involved in an accreditation cycle, and because of the numerous coordination problems that can occur, it is most important that all reports be completed and submitted promptly. It is normally expected that no member of the team will change recommendations from those that were conveyed in writing to the team chair.

**D. Process Assessment and Improvement**

Process participants are expected to assess the effectiveness of the review process and make recommendations for improvement. The quality factors to be assessed, goals, assessment methods, and assessment responsibilities are described in *Table D.1, Review Process Assessment*.

**D.1 Review Process Assessment Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Quality Factor** | **Goal** | **Assessment Method** | **Responsibility to Assess** |
| 1 | Timelines of setting date for review | In spring prior to ANSAC Meeting | Calendar | Team Chair |
| 2 | Timelines of securing commitments from Team Members | In spring prior to ANSAC Meeting | Calendar | Team Chair |
| 3 | Team qualifications | Highly qualified | Survey | Team Chair  Institution |
| 3(a) | Academic versus industry/government | 50/50 split | Direct count | Team Chair |
| 3(b) | Ethnicity and gender | Evidence of diversity | Direct count | Team Chair |
| 4 | Timelines of arrival of program Self-Study Report | July 1 prior to academic year of evaluation | Survey | Team Members |
| 5 | Quality of pre-review assessment | Rated excellent | Survey | Team Members |
| 6 | Timelines of review schedule | Prelim - 6 wk pre-review  Final - 2 wk pre-review | Calendar | Team Members  Institution |
| 7 | Completeness of review schedule | Rated meets needs for thorough assessment | Survey | Team Members  Institution |
| 8 | Completeness and timelines of assessment forms | 100% complete at start of initial team meeting | Qualitative | Team Chair |
| 9 | Quality of accommodations | Meets all needs | Survey | Team Members |
| 10 | Quality of pre-review communications with Institution | Rated excellent | Survey | Team Members  Institution |
| 11 | Quality of communications with Institution | Rated excellent | Survey | Team Members Institution |
| 12 | Observance of meeting schedules | 100% conducted as scheduled | Meeting log | Team Members  Institution |
| 13 | Team Chair’s leadership of team meetings | Rated excellent | Survey | Program Evaluators |
| 14 | Program Evaluator participation in team meetings | All rated excellent | Survey | Team Chair |
| 15 | Team Chair’s leadership of team interactions with Institution | Rated excellent | Survey | Program Evaluators and Institution |
| 16 | Exit Interview program statements | All rated excellent | Qualitative | Team Chair |
| 17 | Quality of program reports | All rated excellent | Qualitative | Team Chair |
| 18 | Timeliness of revised program reports | Review + 21 days | Calendar | Team Chair |
| 19 | Timeliness of Draft Statement | Review + 28 days | Calendar | ANSAC Editor |
| 20 | Quality of review report | Rated Excellent | Qualitative | ANSAC Editor |
| 21 | Accuracy of Draft Statement | No issues of fact raised by Institution | Qualitative | Team Chair  Institution |
| 22 | Timeliness of revised statement | Receipt of 30-day response + 2 weeks | Calendar | ANSAC Editor |
| 23 | Responsiveness of revised Statement | Rated Excellent | Qualitative | ANSAC Editor |
| 24 | Quality of post-review communications with Institution | Rated Excellent | Survey | Team Chair  Institution |

**E. Sample Questions for Interviews**

The following lists of questions to ask program leader, faculty and students were developed as a guide for use by all Program Evaluators, regardless of discipline or commission, to serve as a common foundation in creating the specific sets of questions to be asked during an ABET review.

These lists are intended to verify assertions made in the Self-Study with various stakeholders for consistency and strength of compliance. Additionally, they are ***not*** meant to imply that these are the only questions PEVs may ask; your Commission and your professional society might also recommend specific questions to be asked, plus other questions might naturally arise from your review of the program’s Self-Study Report and related materials. These questions are meant to elicit responses in areas in which shortcomings are often found.

**E.1 Questions for Program Leader**

1. Is a continuous improvement plan in place? Ask for a copy of the plan if it is not included in the questionnaire or in the display material.
2. What are the program educational objectives, and are they different from the ones presented in the self-study?
3. What are the student outcomes, and are they different from the ones presented in the self-study?
4. How do the student outcomes map into the program characteristics in the ABET criteria? Are there any changes from the contents of the self-study?
5. What is your process for setting program educational objectives and student outcomes?
6. What is your process for assessing student outcomes?
7. How does the program curriculum map into your student outcomes?
8. Show me the evidence of the assessment and evaluation of your student outcomes.
9. What changes have been made to the program as a result of your evaluation?
10. How do you assure that your graduates have achieved the student outcomes for the program?
11. What is your process for making changes to the program?
12. How do the program faculty credentials relate to the program educational objectives and student outcomes?
13. How successful is your graduate placement -- job titles, starting salaries, placement rate, etc.?
14. How active is the industrial advisory committee?
15. What program changes have been made because of their input?
16. What are the strengths and weaknesses of your department and support departments?
17. Are any major curriculum changes planned? What? When?
18. What are the major needs for growth and development of the curriculum?
19. Do you control a budget? What is covered?
20. Do you make recommendations for faculty salary? For advancement?
21. How much time is available to the faculty for professional development? What is the budget for faculty professional development (travel funds, etc.)?
22. What does the faculty do during the summer months?
23. Who is responsible for certifying that students have completed requirements before graduating?
24. What is the procedure for approving transfer credit, course substitutions, etc.?

**E.2 Questions for Faculty**

1. What are your program’s assessment and evaluation processes for ensuring student outcomes attainment?
2. What positive changes in the program have been driven by assessment data?
3. How is your professional development supported?
4. Are there enough faculty members in your program to maintain program continuity and stability?
5. Do prerequisites appear to adequately prepare students for their courses?
6. Do students in your program have access to appropriate modern tools, equipment, and computer resources?
7. What support is provided for your program’s academic laboratory and computing facilities?
8. Do library resources meet your students’ needs? Your professional needs?

**E.3 Questions for Students**

1. Where do you receive curriculum advice?
2. Where do you receive career advice?
3. What resources are available for students who are struggling academically?
4. How do you know you are on track for meeting all graduation requirements?
5. Are your laboratory facilities adequate?
6. Are your computer facilities adequate?
7. In what courses are you *taught* about oral and written communication skills?
8. In what courses in your program do you *apply* oral and written communication skills?
9. How are you taught about functioning effectively on a team?
10. To what extent are you able to meet with your instructors outside of class?

**F. Forms**

1. Program Audit Form in the ABET AMS

At the completion of the Exit Interview, the Program Audit is shared with the institution.

1. R351 ANSAC Program Evaluator (PEV) Report Form

The PEV uses the PEV Report Form throughout the review process and submits the final document to the Team Chair at the completion of the review. The exact verbiage used in the Program Audit is to be copied and pasted into the Program Evaluator section of the Report, and final findings noted in the appropriate column. Don’t forget to check off the appropriate Recommended Accreditation Action Form within the document and complete all columns within the worksheet indicating progression/revision of findings as applicable from Pre-Review through to the Exit Statement.