

**ABET, Inc.**

**Applied Science Accreditation Commission**

**Program Evaluator Manual  
of  
Evaluation Process**

Applied Science Accreditation Commission  
Accreditation Board for Engineering and Technology, Inc.  
415 North Charles Street  
Baltimore, MD 21201

Telephone: 410-347-7700  
Fax: 410-625-2238  
E-mail: [accreditation@abet.org](mailto:accreditation@abet.org)  
Website: <http://www.abet.org>

## Manual of Evaluation Process

### Forward

Welcome to the challenge of participating as a member of an Applied Science Accreditation Commission team that will conduct an ASAC visit. Your role is one of significant responsibility and importance to the institution you will visit, 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 visit for your particular program and the overall team outcomes. A thorough program visit involves careful pre-visit preparation, strong on-site observation, analysis and communication skills, sound judgement, 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 Science Accreditation Commission (ASAC) 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 visiting teams representing the ASAC of ABET and the professional societies. The applicable criteria, *Criteria for Accrediting Applied 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 Participating Bodies of ASAC/ABET and/or the Cognizant Technical Societies of the ASAC/ABET that have curricular responsibilities for those programs and are ratified by the ASAC and by the ABET Board of Directors in the same manner as are general engineering-related criteria. Program evaluators must be familiar with the current version of the criteria in effect for the visit.

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 ASAC Criteria and this process is to assure that graduates of an accredited program are prepared to enter and continue the *practice of industrial hygiene, safety, industrial management, health physics, surveying or other applied science programs as identified by ASAC*. In addition, the Applied Science Accreditation Commission expects the Criteria and this process to stimulate the improvement of educational outcomes and encourage new and innovative approaches to engineering-related education.

## II. PREPARATION FOR AN ACCREDITATION REVIEW BY ASAC OF ABET

A. 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 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.

B. Preparation of Documents for the Evaluation Visit

1. Documents sent by the institution directly to ABET headquarters:

- a. Request for Evaluation (3 copies) -- due January 31;
- b. A copy of a student transcript for each program to be reviewed;
- c. One copy of the Self-Study Questionnaires for each program to be evaluated or for interim reports -- due date is July 1.

2. Documents to be sent by the institution to each member of the evaluation team when advised by the team chair.

- a. One copy of the Self-Study Questionnaire for the program that the team member will be responsible for evaluating. The team chair receives Self-Study Questionnaires for all programs.
  - b. Latest institutional catalog and promotional material.
  - c. Such other descriptive material about the applied science programs as deemed appropriate by the institution.
  - d. Student transcripts as requested by the team chair.
3. Documents to be made available on campus at the time of the review. The responsible faculty member in each instructional area must assemble the following materials for inspection by team members:
- a. Textbooks used in each principal course of study normally taken by students in the discipline.
  - b. Representative samples of examination statements, student examination papers and samples of homework in each course, to include work graded from poor to good.
  - c. Samples of laboratory instructions and students' laboratory reports in each course to include work graded from poor to good.
  - d. Assessment materials along with evaluation of results.

The above materials should be made conveniently accessible for examination by the visitors. Appropriate preparations to include at least a display of textbooks used should be made available for the supporting areas of mathematics, chemistry, physics and the most relevant areas in the humanities and social sciences.

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

### **III. VISIT PROCESS**

The process of conducting a visit has three basic elements: (a) pre-visit activity, (b) the campus visit, and (c) post-visit 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 ASAC, 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 ASAC.

## **A. Pre-Visit Activity**

Pre-visit activities are conducted prior to arrival at the institution for the campus visit, beginning with the selection of the Team Chair.

### **A.1 Objectives**

The objectives of the pre-visit 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 visited
2. Complete a substantial portion of the assessment prior to the campus visit, based on materials furnished by the institution
3. Develop a plan for additional assessment to be conducted during the campus visit 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 visit as mutually agreed by the institution and the Team Chair.

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

Year	Date	Action
2014	Mid-April	Assignment of Team Chair and formation of team. (Subject to approval by institution seeking accreditation)
	By July 1	Self-Study Questionnaire due from institution seeking accreditation. (With institution's catalog)
	By June 1	Team Chair obtains institution seeking accreditation approval of Team. Visit date established.
	By July 1	Institution seeking accreditation sends Questionnaire, IV or IR Report, catalog, transcripts, and other requested materials to team members.
	Sept. to Dec.	Visit is conducted. (date of campus visit)
	Visit + 7 days	Team Chair submits Short Form Report (A002) and Draft Statement to Editor 1 via email, with copies to ASAC Chair and Headquarters Office
	Institutional Response - visit + 7 days	Institutional response to Exit Interview Statements and Program Audit Forms including Explanation of Shortcomings.
	Visit	Team members submit reports and proposed draft statements to Team Chair.
	Visit + 30 days	Team Chair submits updated proposed Draft Statement electronically to Editor, ASAC Chair, and Headquarters Office.

Year	Date	Action
2015	Visit + 60 days	Editor sends edited proposed Draft Statement and electronic copy of Short-Form Report to ASAC Chair
	Visit + 65 days	ASAC Chair sends final Draft Statement and electronic copy of Short Form Report to Headquarters Office
	Visit + 70 days	Headquarters Office (through ASAC Chair) sends Draft Statement to the Institution seeking accreditation, with copies to Team Chair, Editor, and ASAC Chair. Headquarters Office returns electronic copy of Short-Form Report to Team Chair.
	Visit + 100 days	Institution seeking accreditation submits response to Draft Statement to the Team Chair, Editor, ASAC Chair, and Headquarters Office.
	Visit + 115 days	Team Chair, after consultation with team members, sends proposed Final Statement, amended Program Audit Form and electronic A002-Form report to Editor.
	Visit + 120 days	Editor sends Edited Final Statement, amended Program Audit Form and electronic A002-Form to ASAC Chair.
	Visit +130 days	ASAC Chair sends final revised Statement, amended Program Audit Form and electronic A002-Form to Headquarters Office
	Before ASAC Meeting	Headquarters Office prepares materials for meeting (copies of electronic A002 Form, Program Audit Form and Proposed Final Statement to the Institution for Blue Books)
	July __	ASAC Annual Meeting; ASAC takes accreditation action and develops Final Statement to the Institution to be transmitted to Institution seeking accreditation

		Year Action	Date
2015	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	

## **B. Campus Visit Activity**

Campus visit activity begins with the arrival of the evaluation visit team in the community where team members will be lodging during the course of the visit, and this segment of the evaluation process ends when the team members leave the campus and all meetings have been completed.

### **B.1 Objectives**

The objectives of the campus visit 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 strong points.

### **B.2 Process Participants**

Key participants in the campus visit are (a) the team members -- including the Team Chair, Program Evaluators, and Observers, (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 campus visit process must be implemented as a set of well-integrated activities.

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

### C. Typical Schedule for a Visiting Team

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

Even with a small institution it appears undesirable to try to accomplish a visit 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 visitors ordinarily travel to the campus late on Saturday or early Sunday, and convene Sunday afternoon or evening. The visit usually terminates late in the afternoon of the second full day.

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

#### 1. *Afternoon or Evening Prior to Visit (Day 0)*

If an early start to the visit is planned, typical activities on the afternoon of Day 0 include a tour of the program facilities and the review of textbooks and course work.

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 visiting 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 visit, 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 visit and make, or review, assignments of specific tasks to the members of the visiting team. An assignment should be made for service departments (such as mathematics, physics, and chemistry), other physical sciences (such as geology and metallurgy), engineering-related sciences areas (if they are not included within one of the major engineering-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. Visits made to 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 assigned to each program is expected to give to 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 concern 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 visit 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 engineering-related programs at the start of the visit. 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 engineering-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)*

This is the only meal occasion hosted by the institution, and often involves key members of the institution's academic and administrative staff. 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 (Day 1)*

The team, as a whole, should reassemble 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. It is

important to determine whether these strengths and weaknesses occur throughout the engineering-related unit or are peculiar to particular departments or curricula. When a team member finds unusual conditions in one particular department, 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.

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

When a visiting 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. Cross-checking of other departments is accomplished as discussed during the previous evening's meeting.

Meetings between the respective program visitors and program chairs, and between the Dean and the Team Chair, are typically conducted late in the morning time period with the objective of providing those institutional officials with advance notice of any issues likely to be identified at the afternoon exit interview. 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. *Luncheon on the Second Day (Day 2)*

The team reassembles in executive session for luncheon on the second day. The exact conduct of the luncheon 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 visitor who speaks at the exit interview to prepare, for the chair, a copy of the comments that he or she will make at that meeting. These comments will be reviewed prior to the meeting. Whether those comments must be read or may simply be used as notes is at the discretion of the team chair.

Efforts should be made to reach agreement between all team members on accreditation recommendations for all of the programs being evaluated. Although a visitor 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 of each program's compliance with ABET criteria. Ideally, consensus will be achieved during the luncheon meeting with regard to all

program recommendations. If existing differences can be resolved with information available on the campus or by telephone, 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 ASAC.

The team chair will want to leave this meeting with a written record (signed and dated) of each program evaluator's recommendation for accreditation.

#### 8. *Afternoon of the Second Day*

The entire visiting team meets with the dean, the president, and other administration officials, for the following purposes:

- a. to review the findings of the team,
- b. to report observations of program strengths and weaknesses,
- c. to respond to questions posed by the president and dean relative to those reports, and
- d. to leave a copy of the Program Audit Form and Explanation of Shortcomings with the institution.

It is quite important at this point that the chair and the team state only facts and observations as found and verified. It is also important that the team emphasize the 7-day response period available for comment by the institution on matters of fact with regard to items included in the Program Audit Form and Explanation of Shortcomings.

Team members are to complete a draft of their report before leaving the visited institution. 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.

#### **B.4 Process Assessment and Improvement**

Process participants are expected to assess the effectiveness of the campus visit process and make recommendations for improvement. The quality factors to be assessed, goals, assessment methods, and assessment responsibilities are described in *Table 1, Visit Process Assessment*, Items 11-16.

	<b>Quality Factor</b>	<b>Goal</b>	<b>Assessment Method</b>	<b>Responsibility to Assess</b>
1	Timelines of setting date for campus visit	In spring prior to ASAC Meeting	Calendar	Team Chair
2	Timelines of securing commitments from Team Members	In spring prior to ASAC 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-visit Assessment	Rated excellent	Survey	Team Members
6	Timelines of visit schedule	Prelim - 6 wk pre-visit Final - 2 wk pre-visit	Calendar	Team Members Institution
7	Completeness of visit 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-visit communications with Institution	Rated excellent	Survey	Team Members Institution
11	Quality of on-site 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	Campus visit + 21 days	Calendar	Team Chair
19	Timeliness of Draft Statement	Campus visit + 28 days	Calendar	ASAC Editor
20	Quality of Visit Report	Rated Excellent	Qualitative	ASAC 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	ASAC Editor
23	Responsiveness of revised Statement	Rated Excellent	Qualitative	ASAC Editor
24	Quality of post-visit Communications with Institution	Rated Excellent	Survey	Team Chair Institution