The good news is that most programs already meet 90% of what is required for ABET accreditation. Once you have committed the resources, you can be ready for the onsite visit in about 2 years. Some programs will take longer because they have an issue with something that takes longer to resolve, like curriculum, or they take a less aggressive approach to implementation.

Accreditation is an audit of your program to determine if you meet all the ABET requirements based on interviews, tours and reviewing documents. ABET has been accrediting engineering programs in the United States since the 1930's and began accrediting internationally about 10 years ago with accredited programs in 27 countries outside the United States including programs in Mexico, Colombia, Ecuador, Peru and Chile.

After initial accreditation, programs have a general review every 6 years and some may need to submit additional information between reviews. If you add a program between general reviews, it will be reviewed sooner than 6 years with the other programs.

Figure 1: Typical Initial ABET Accreditation Timeline

3 YRS BEFORE	2 YRS BEFORE	1-2 YRS BEFORE	1 YR BEFORE	6-12 MO BEFORE	3-6 MO BEFORE
Discuss whether to seek ABET accreditation	Gap Analysis and Planning	Close Gaps, Begin Student Outcome Assessment	Submit Draft Self Study, Pay Fees, Gather materials	Readiness Feedback, Apply, Pay Fees, Mock Visit	Submit Self Studies

0-3 MO BEFORE	ABET Visit	7 DAYS AFTER	30-90 DAYS AFTER	1-8 MO. AFTER	6-9 MO. AFTER
Answer Questions and final preparations	ABET Team On-site 3 Days	Respond to PAF (Program Audit Form) with any missing information	Respond to Draft Exit Statement with plan to fix issues	Submit evidence to show you implemented your plan to fix issues	Receive final statement in August. CELEBRATE!

Figure 2: Typical General Review ABET Accreditation Timeline

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Results Final. Implement solutions to problems. Collect records.	Interim Report or Interim Visit, if required. Collect records.	Collect Records for Next Review	Collect Records for Next Review	Begin writing self study, collect records for next review, mock visit	ABET General Review

The ABET self study is a key document in the process because it explains how you meet the ABET requirements. ABET provides a template with questions to answer and tables that helps insure that you address all the requirements. Your program evaluator (PEV) reviews this prior to the on-campus portion of the visit and uses the visit to get supporting evidence of what you do.

ABET Accreditation Requirements:

The requirements are described in documents available on the ABET website at www.abet.org. The Accreditation Policy and Procedures Manual (APPM)[1] applies to all programs and includes information about procedures and due dates, definitions, safety and sharing data about the program. The four Criteria for Accrediting XXX Programs[2, 3, 4, 5] are similar - choose the one that applies to your type of program: Engineering, Applied and Natural Sciences, Computing, or Engineering Technology.

Criteria for Accrediting XXX Programs

The Criteria documents include General requirements that apply to all programs and Program Criteria that apply to programs based on their names.

There are 8 parts in the general criteria.

Criterion 1. Students

This criterion covers admissions, transfer students, transfer credit prerequisites, graduation requirements, academic and career advising. The supporting evidence includes:

- Transcripts
- Advising guides
- Graduation checklists
- Student and faculty interviews

Criterion 2. Program Educational Objectives (PEO's)

These are statements about what graduates become, achieve or do a few years after graduation. You must periodically involve your constituents in reviewing them even if you don't change them. The supporting evidence includes:

- Meeting notes
- Websites and documents with the PEO's
- Interviews of constituents (faculty, employers, alumni, etc.)

Criterion 3. Student Outcomes

These are abilities, skills and knowledge that students are expected to achieve by the time they graduate and the list is defined in the Criteria. The supporting evidence

- Website and documents with the Student Outcomes

Criterion 4. Continuous Improvement

You have to measure the student outcomes, analyze the data, make decisions about needs for improvement and use the information to improve the program. The evidence reviewed

- Rubrics and related assignments
- Meeting Notes
- Evidence related to implementation of changes
- Interviews of faculty and students

Criteria 5: Curriculum

As you might expect, Engineering, Computing, Applied Science, Engineering Technology all have somewhat different requirements. All have requirements related to content related to the name (engineering, computing, science, technology.) and math and or basics science content. Most have culminating or integrative or design experience requirements. Some have differences between Associates, Bachelor and Master's requirements. Engineering programs in Mexico and Colombia and other countries outside the United States often include more engineering content and less math and basics sciences. The evidence reviewed includes:

- Course binders
- Faculty and Student Binders
- Transcripts

Criteria 6: Faculty

The faculty must be qualified to teach what they teach and in sufficient to take care of everything else expected of them - advising, student interaction, committee work, research, professional development, interactions with practitioners, etc. They must have the authority to manage the program. The evidence reviewed includes:

- Faculty and Student Interviews

Criteria 7: Facilities:

Facilities must be sufficient to create a good learning experience for the students. Offices, classrooms and libraries are rarely problems. Evidence reviewed:

- Lab Tour
- Student and Faculty Interviews

Criteria 8: Institutional Support

Leadership and funding necessary to keep the program running now and through the next 6 year review. The evidence reviewed:

- Faculty and student interviews
- Lab Tours
- Student materials for evidence of lab or project group size

Program Criteria

If the name of your program matches the name of one of the program criteria then you must also meet the requirements of the program criteria. Otherwise you only need to satisfy the general criteria and APPM. These additional requirements fall into three areas and the evidence is the same as for the related areas in the general criteria.

3. Student Outcomes (Computing, Engineering Technology only) additional ones that must be measured and the information used to improve the program.

5. Curriculum - additional topics that must be included in the curriculum

6. Faculty - additional qualifications of faculty members

Accreditation Policy and Procedure Manual: APPM

Public Information

Information about the Program Educational Objectives, Student Outcomes, and enrollment and graduation statistics must be available to your constituents. Evidence is on website and other documents.

Safety

While Program Evaluators and Team Chairs are not safety experts, they report any safety issues they see while on their visit. Evidence from lab tour and interviews.

<u>Understanding your Findings:</u>

ABET accreditation doesn't have a numeric score or create a ranking. It is a pass/fail measure where you must meet all the requirements. Each criteria and the APPM can have a separate evaluation.

Strength   No impact on Accreditation but helpful information for you
Deficiency   Requirement not met, Do Not Accredit/Reaccredit
Weakness   Some of the requirement is not met, Interim Report or Visit in 2 years
Concern   The requirement is currently met but circumstances could change so it is not met
Observation   Comments not related to the Criteria

A single Deficiency, if not resolved during between the visit and summer ABET Commission meeting, will lead to a decision not to accredit or for renewing programs on a path to revoking the accreditation. You can withdraw your application at any time until the meeting, but refund amounts are related to a date schedule. When you pass, you will be added to the ABET accredited program list along with the date of your next review. If you do not pass you are added to the list on the ABET website. The APPM also describes the appeal process.

<u>Program Evaluators and Team Chairs</u>

There are over 2000 people who volunteer their time as ABET program evaluators and team chairs. They are selected by their professional societies and go through a training process before they can evaluate your program. Most also go on an observer visit or are partnered with an experienced program evaluator reviewing a program in the same department as part of their training. PEV's generally evaluate one program per year, Team Chairs two per year. They cannot be on your accreditation team if there is a conflict of interest - for example, attending, working for, applying for work at your university or a close family member with that type of relationship to your university. In addition, they can never revisit the same university. Universities have the opportunity to approve the team chairs, program evaluators and observers.

<u>Changes</u>

Engineers can't help but tinker with the process and requirements. Officially this is known as continuous improvement. Proposed changes go through a formal review process with proposed changes at the end of each of the Criteria for Accreditation of XXX Programs. Make sure you are referring to the current versions of the documents and templates.

References:

1. ABET, Accreditation Policy and Procedure Manual, Effective for Reviews During the 2017-2018 Accreditation Cycle, A001 11/23/2016.
2. ABET, Criteria for Accrediting Applied Science Programs, Effective for the Reviews During the 2017-2018 Accreditation Cycle, R001 10/29/2016.

3. ABET, Criteria for Accrediting Computing Programs, Effective for the Reviews During the 2017-2018 Accreditation Cycle, C001 10/29/2016
4. ABET, Criteria for Accrediting Engineering Programs, Effective for the Reviews During the 2017-2018 Accreditation Cycle, E001 10/29/2016.
5. ABET, Criteria for Accrediting Engineering Technology Programs, Effective for the Reviews During the 2017-2018 Accreditation Cycle, T001 10/29/2016.

Author Bio: Eileen Webb, President, Accreditation Preparation, LLC has been on 14 official ABET visits including visits to Mexico, Colombia, Saudi Arabia and Kuwait. Accreditation Preparation works with universities to prepare them for ABET accreditation with over a dozen clients in the United States, Mexico, Colombia and Portugal. Her chemical engineering degree is from the Georgia Institute of Technology. Her experience also includes employment by major international corporations and small businesses and industrial engineering and quality consulting.