Accreditation Issues of Strategic Importance to the Civil Engineering Profession

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Background

For nearly two decades, the American Society of Civil Engineers (ASCE) has been preparing to address the unprecedented engineering challenges of the 21st century by advocating higher academic prerequisites for entry into the practice of engineering at the professional level. This “Raise the Bar” initiative is formally articulated in ASCE Policy Statement 465.¹

ASCE’s ability to implement the “Raise the Bar” initiative has been (and will continue to be) substantially influenced by ABET accreditation. Historically, ABET accreditation criteria, policies, and procedures have constituted a widely recognized standard for ensuring the quality of engineering programs in the U.S. and, to an increasing extent, around the globe. Today, ABET describes itself as “the global gold standard in educational accreditation.”²

As a result, the standards for professional engineering licensure throughout the U.S. incorporate provisions that simply presume the quality of an ABET-accredited engineering degree—with no further scrutiny of university curricula or individual engineers’ transcripts.³ Given this strong linkage to professional licensure, appropriately crafted ABET accreditation criteria, policies, and procedures can serve as powerful tools in support of ASCE’s efforts to raise the educational bar for engineers. Conversely, accreditation criteria, policies, or procedures that do not support an adequate level of educational attainment can seriously hinder the initiative.

Historically, ASCE has had a strong organizational structure and processes for monitoring and influencing the ABET criteria; however, the society has not been adequately organized for systematically examining and influencing ABET policies and procedures. Given the strong impact of ABET policies and procedures on the level of educational attainment in accredited engineering programs, this shortcoming in ASCE’s committee organization has been a substantial hindrance to the implementation of Policy Statement 465.

In early 2009, in recognition of this shortcoming, ASCE formed an ad hoc Task Committee on Accreditation Policies and Procedures for the purpose of strategic-level interaction with ABET. The principal charge of this committee was to engage with the senior governing bodies of ABET to influence the formulation, implementation, and maintenance of policies and procedures consistent with ASCE’s ongoing “Raise the Bar” initiative. The ad hoc nature of this committee reflected both a compelling need to address strategic issues of immediate concern and the lack of any standing committee appropriately constituted to address these issues. The task committee served until the fall of 2012, when its functions—now recognized as indispensable—were incorporated into a newly created standing committee, the ASCE Committee on Accreditation. The authors of this paper were all members of the ad hoc task committee at the time of its establishment in 2009 and are writing this paper in that capacity.

The purposes of this paper are to describe the organization, processes, and initiatives of ASCE’s Task Committee on Accreditation Policies and Procedures from 2009 to 2012; to assess its
effectiveness in fulfilling its charge during this period; and to offer recommendations to ASCE’s new educational and accreditation committees for next steps and future directions. Thus, this paper is intended to “pass the torch” to the civil engineering professionals who will be addressing accreditation-related issues related to ASCE’s “Raise the Bar” initiative in the future.

**ABET Organizational Structure and Governing Documents**

ASCE’s strategic engagement with ABET can only be understood in the context of the ABET organizational structure, as defined in its key governing documents. This structure is summarized in Figure 1.

![ABET organizational structure](image)

ABET is federation of professional societies, currently consisting of 30 Member Societies and three Associate Member Societies. The Member Societies include 27 professional organizations representing specific disciplinary curricular areas within the engineering, engineering technology, computing, and applied science professions; plus the National Council of Examiners for Engineering and Surveying (NCEES) and the National Society of Professional Engineers (NSPE), representing the professional licensure community; and the American Society for Engineering Education (ASEE), representing the education community. ABET’s three Associate Members are the Materials Research Society (MRS), the Society of Women Engineers (SWE), and the Women in Engineering ProActive Network (WIPAN). ABET accreditation activities are carried out by over 2,000 volunteers recruited from the Member Societies. Most of these volunteers serve as ABET program evaluators.

For the purpose of executing its accreditation mission, ABET is organized into four commissions—the Engineering Accreditation Commission, Engineering Technology Accreditation Commission, Computing Accreditation Commission, and Applied Science Accreditation Commission—representing the four major disciplinary domains in which ABET accredits programs. These commissions are charged with conducting accreditation evaluations and rendering decisions on the accreditation of each evaluated program. Commissioners are drawn primarily from the ABET Member Societies, with membership allocation based on each society’s number of accredited programs in the associated domain. Commissioners are nominated by their member societies but must be approved by ABET; and because Commissioners also serve as Team Chairs for all accreditation visits, they typically have
extensive experience in the ABET accreditation evaluation process. Most have several years’
experience as ABET program evaluators before being nominated to serve as Commissioners.

Each commission maintains its own separate set of accreditation criteria. Each set of criteria
consists of both General Criteria, which are applicable to all programs, and Program Criteria,
which are only applicable to programs in a specific curricular area, as indicated by the program
name. Each set of Program Criteria has one or more designated Lead Societies, with principal
responsibility for formulating and maintaining the criteria. (For example, a program named
“Civil Engineering” is subject to the EAC “Program Criteria for Civil and Similarly Named
Programs,” for which ASCE is designated as Lead Society.) The EAC and ASAC criteria also
include separate General Criteria for the baccalaureate and master’s levels.

ABET’s principal governing body is its Board of Directors, which is charged with guiding the
strategic direction of the organization, providing fiscal oversight, establishing policies and
procedures, and approving the four sets of accreditation criteria developed by the commissions.
The ABET Board of Directors consists of:

- five elected officers—president, president-elect, past president, secretary, and treasurer;
- five Public Directors, who represent the public and can have no affiliation with the fields
  of engineering, engineering technology, computing, or applied science; and
- representatives of ABET’s Member Societies and Associate Member Societies.

Each Member Society has at least one seat on the Board, and societies with relatively larger
numbers of accredited programs have either two or three seats each. Each Associate Member
Society also provides one non-voting Board member. As a result of this allocation system, the
ABET Board of Directors currently has 54 members.

The Board is guided by an Executive Committee, consisting of the five elected officers listed
above; two members of the Board, elected to serve as liaisons; and seven non-voting members—
the ABET Executive Director, the current chairs of the four commissions, and the chairs of the
Global Council and Accreditation Council (see below). The Executive Committee formulates the
agenda for the Board’s two annual meetings.

The Board is also advised by four councils:

- The Accreditation Council is charged with formulating and recommending accreditation
  policies and procedures. This council is composed primarily of the chairs, past-chairs,
  and chairs-elect of the four ABET commissions. None of the Accreditation Council
  members are Board members.
- The Global Council is charged with formulating and recommending policies and
  procedures regarding ABET’s international activities. It is composed of at least nine
  members, a majority of whom must be Board members.
- The Academic Advisory Council (AAC) is charged with providing academic viewpoints
  on ABET accreditation issues and serves as a liaison between ABET and the academic
  community. This council is composed of approximately 20 academic leaders associated
  with engineering, engineering technology, computing, and applied science programs.
  None of these representatives are Board members. The ABET president, president-elect
  and executive director also serve as members of the AAC.
• The Industry Advisory Council (IAC) is charged with providing industrial viewpoints on ABET accreditation issues, stimulating greater industry involvement in the work of ABET, and serving as a liaison between ABET and industry. The council is composed of approximately 15 industry representatives, none of whom are Board members. The ABET president, president-elect and executive director also serve as members of the IAC.

This organization and the associated organizational responsibilities are specified in a series of ABET governing documents:

• The Constitution, which describes the purpose, membership requirements, and general governance structure of ABET;  
• The Bylaws, which govern the responsibilities and operations of the Board of Directors, commissions, councils, and committees;  
• The Rules of Procedure, which define the operations of the Board, commissions, and councils at a higher level of specificity;  
• The Accreditation Policy and Procedure Manual (APPM), which articulates the policies and procedures that govern ABET accreditation, for use by programs, accreditation commissions, team chairs, and program evaluators. It is important to note that the APPM is not merely a compendium of policies and procedures published in other governing documents; many of its provisions are unique to the APPM.

These governing documents follow a strict hierarchy: the Constitution is paramount, and each lower-level document derives from, and must be consistent with, the documents above it in the hierarchy. All changes to these documents are subject to approval of the ABET Board of Directors; and changes to the Constitution also require ratification by at least two-thirds of the Member Societies.

Several aspects of the ABET governance structure are particularly relevant to this paper:

• From both organizational and function perspectives, the Board of Directors is the only governing body of ABET that is fully representative of the Member Societies and that provides a viable forum for the resolution of policy issues. Board Members are appointed by their Member Societies, and the Board meets twice per year.

• The ABET commissions are representative in structure; however, their members are only nominated (not appointed) by their Member Societies—and these nominations are constrained by the need for commissioners to be experienced program evaluators. The commissions only meet once per year, and their operational mission (determining accreditation actions) is so demanding that it leaves relatively little time for consideration of policy issues.

• The four ABET councils are advisory bodies; they have no authority to establish policies or procedures. And none of these councils are representative of the ABET Member Societies.
ASCE Task Committee on Accreditation Policies and Procedures

The organization of ASCE’s *ad hoc* Task Committee on Accreditation Policies and Procedures was derived from the ABET governance structure and the various constituencies comprising ASCE’s accreditation community. The committee membership consisted of:

- all three of ASCE’s representatives on the ABET Board of Directors;
- one of ASCE’s six commissioners on the Engineering Accreditation Commission;
- one of ASCE’s three commissioners on the Engineering Technology Accreditation Commission;
- one member of the ASCE Committee on Curricula and Accreditation, the standing committee charged with recruiting, training, assigning, monitoring, and assessing Program Evaluators for civil, construction, and architectural engineering programs, as well as the associated engineering technology programs;
- one member of the ASCE Committee on the Academic Prerequisites for Professional Practice, the committee charged with managing the Society’s “Raise the Bar” initiative; and
- one non-voting ASCE senior staff member, responsible for professional and educational activities.

To fulfill its charge, the committee established two complementary modes of operation—one *proactive* and one *reactive*. In the proactive mode, the committee developed and periodically updated a comprehensive list of accreditation issues of strategic importance to ASCE; and then planned, coordinated, and implemented actions and initiatives aimed at addressing these issues. In the reactive mode, the committee continuously monitored issues and actions initiated by the ABET leadership, staff, and other Member Societies, to determine possible impacts on ASCE and the engineering profession; then coordinated, formulated, and articulated ASCE’s position with respect to these issues.

Over the three years of its existence, the ASCE Task Committee on Accreditation Policies and Procedures worked on the following eight major strategic accreditation issues:

- Attainment of outcomes
- Definition of one year of study
- Authority for approving policies and procedures
- Program naming
- Harmonized accreditation criteria
- Ambiguity regarding the applicability of Program Criteria
- Program Criteria for structural engineering
- Change of commission name from TAC to ETAC

The four most important of these issues are summarized in the following sections.

**Attainment of Outcomes**

In 2007, the ABET Accreditation Council embarked upon a large-scale project to “harmonize” the four sets of accreditation criteria maintained by the four ABET commissions. The principal goal of this project was to achieve greater consistency across criteria. This goal was to be
achieved by modifying the organization of the criteria (e.g., by using more consistent numbering of criteria) without changing their substance.

The EAC’s product of this effort, titled “Proposed Harmonized General Criteria for Engineering Programs,” was approved by ABET Board in November 2008 and then published in December 2008 to initiate a two-year public review period. In July 2009, the EAC approved interim changes to the criteria, based on preliminary input from constituencies, and presented the updates (for information only) at the October 2009 ABET Board meeting. The ASCE Task Committee on Accreditation Policies and Procedures was formed shortly thereafter; and reviewing the Proposed Harmonized General Criteria was among its first major tasks.

During this review, the committee identified a significant issue with the proposed revision to Criterion 3, which addresses Student Outcomes. In all annual EAC Criteria editions published over the previous decade, Criterion 3 had specified that “engineering programs must demonstrate that their students attain the following outcomes….” In the proposed harmonized criteria, Criterion 3 dropped the explicit requirement for students to attain outcomes, requiring only that “the program must have documented student outcomes that prepare graduates to attain the program educational objectives.” ASCE interpreted the change from “students attain…outcomes” to “program must have…outcomes” as a troubling reduction in the rigor of the criteria. Such a reduction—if it did occur—would weaken ASCE’s “Raise the Bar” initiative by compromising the profession’s ability to validate attainment of the professional body of knowledge.

It should be noted that Criterion 4 of the proposed harmonized criteria added a provision that “the program must regularly use appropriate, documented processes for evaluating the extent to which both the program educational objectives and the student outcomes are being attained;” however, as written, this evaluation was required only for continuous improvement of the program. Thus, under the harmonized criteria, it would appear to be acceptable if a program’s students did not attain the Student Outcomes at the time of graduation, as long as that determination was used to improve the program in subsequent years.

ASCE stated its concerns about this issue in a letter to ABET, dated April 1, 2010, and recommended the restoration of an explicit requirement for students to achieve the Student Outcomes. Although ASCE received no direct feedback on its letter, it became clear that the committee’s recommendation had not been accepted when ABET published the agenda for the upcoming Board of Directors meeting in October. The agenda included an updated version of the harmonized criteria, which would be presented to the Board for final approval; and that update incorporated no changes to the Student Outcome provisions of Criterion 3.

Consequently, the ASCE task committee decided to take the issue directly to the ABET Board. At the October 2010 Board meeting, ASCE moved that the EAC take action to clarify the issue of outcomes attainment. During the subsequent discussion, the EAC Chair argued against the ASCE motion and assured the Board that the harmonized criteria did indeed require attainment of Student Outcomes. The ASCE motion was then defeated.

* ABET defines Student Outcomes as statements that “describe what students are expected to know and be able to do by the time of graduation.”12
Following the meeting, in a private conversation with ASCE’s Board representatives, the EAC Chair acknowledged ASCE’s concern and indicated that the commission would watch this issue carefully for the next few years to ensure that all parties in the accreditation process interpret Criterion 3 correctly—and that accreditation teams continue to evaluate the attainment of Student Outcomes. On this basis, the ASCE task committee decided not to take any further action in the short term, but to continue monitoring this issue.

**Definition of a Year**

In the “Proposed Harmonized General Criteria for Engineering Programs” a formal definition of one year of study was added to Criterion 5 (Curriculum). This provision states that “one year is the lesser of 32 semester hours (or equivalent) or one-fourth of the total credits required for graduation.” This was actually not a new requirement, as it had been previously specified in the ABET Accreditation Policy and Procedure Manual. Nonetheless, this issue had been identified as problematic on several occasions in the past; thus, the ASCE task committee chose to address it in conjunction with its review of the proposed harmonized criteria.

ABET’s definition of a year is important, because it is used as the basis for specifying the minimum required curricular content in mathematics and basic science (one year) and engineering topics (one and one-half years) in the EAC criteria.

From ASCE’s perspective, the ABET definition is problematic, because the phrase “the lesser of” results in no definitive lower limit on a program’s math, science, and engineering content. It also tends to penalize programs that require relatively more total credits for graduation and reward those that require fewer credits. For example, a program that requires 128 credit hours for graduation must offer 48 credits of engineering topics (ET) and 32 hours of math and basic science (M&BS); a program that requires 120 credit hours for graduation must offer only 45 hours of ET and 30 hours of M&BS; a program that required only 100 hours to graduate could offer only 37.5 hours of ET and 25 hours of M&BS without violating the EAC Criteria.

The ASCE task committee opposed the continued use of this definition for three reasons:

- Logically, the minimum required math, science, and engineering content of a baccalaureate-level engineering curriculum should be absolute, given that the graduates of all programs are being prepared to enter the same profession. It seems illogical that, to enter engineering practice, the graduate of a 100-hour program would require 22% less engineering content that the graduate of a 128-hour program.

- There has been a documented trend to reduce the total credit hours required for graduation from undergraduate degree programs over the last several decades. This trend is one of several justifications for ASCE’s “Raise the Bar” initiative and has also been cited as a source of concern by several other engineering societies. Yet the ABET definition of a year actually provides an incentive for such reductions by requiring less engineering content for programs with lower overall credit-hour requirements.

- ASCE’s “Raise the Bar” initiative—and the strategic visions of several other engineering societies—have called for greater emphasis on humanities, social sciences, and professional practice in baccalaureate-level engineering curricula (with technical
specialization focused at the master’s level).\textsuperscript{14,15,16} Yet the ABET definition of a year can actually penalize this sort of curricular reform. For example, a 120-hour program that chose to add six additional hours of humanities and social sciences would also be forced to add three hours of ET and two hours of M&BS—even though its former ET and M&BS coverage was in full compliance for a 120-hour program. Thus, this program would be required to offer more technical content, simply because it sought to develop more broadly educated graduates.

The ASCE task committee stated its concerns about this issue as part of its formal written feedback on the Proposed Harmonized Criteria, dated April 1, 2010. In this letter, ASCE recommended that one year of study be simply defined as 32 semester hours. However, the definition of a year was unchanged in the updated draft of the harmonized criteria presented to the ABET Board in October 2010.

After much deliberation, ASCE chose not to bring this issue directly to the Board—in part, because NCEES had now taken an interest in the same issue and indicated a willingness to raise it on behalf of the licensure community. Thus, in June 2011, NCEES sent a letter to ABET expressing concern about the published definition of a year and recommending that EAC Criterion 5 be revised to require (1) that one year of study be defined as 32 semester hours and (2) that programs offer an overall minimum of four years (128 semester hours) of study.

In June 2012, the ABET EAC Chair responded with a letter informing NCEES that the EAC had decided to take no action on the recommendation, for the following reasons:

- A credit-hour “floor” is unnecessary, because the ABET criteria are outcomes-based.
- The current definition of a year is deemed to be appropriate.
- U.S. regional accrediting agencies require a minimum of 120 semester hours for a bachelor’s degree; thus, a \textit{de facto} 120-hour “floor” already exists.
- Imposing a 128-hour “floor” would cause several high-quality programs to fall out of compliance with the EAC Criteria.

In following up on this response, NCEES was unable to find 120-hour minimum degree requirements in the published standards of several regional accrediting agencies. Their subsequent request for clarification resulted in a more detailed response from ABET’s Director of Accreditation. This response, dated August 30, 2012, acknowledged that several regional accrediting agencies (e.g., the Northwest Commission on Colleges and Universities and the Middle States Commission on Higher Education) do not specify 120-hour minimum degree requirements; however, he added that these agencies do address minimum credits indirectly, by requiring institutions to be authorized to grant degrees in the states in which they are operating. Thus the laws of the individual states set the credit requirements.

This response, although quite helpful, only addressed a portion of ASCE’s concern. The existence of a \textit{de facto} 120-hour “floor” for bachelor’s degree programs was reassuring but not entirely convincing—in part, because the authors have been unable to find statutory 120-hour minimum credit-hour requirements in all states, but also because state laws can readily be changed. The governor of Ohio, for example, has been actively advocating three-year baccalaureate degree programs as a means of reducing the cost of a college education.\textsuperscript{17} More
importantly, ABET’s response fails to address the adverse influence of the definition of a year on programs requiring between 120 and 128 credit hours, as noted above.

For these reasons, ASCE continues to be concerned about ABET’s definition of a year and will continue to seek opportunities to effect a more consistent standard.

Authority for Approving Policies and Procedures

In conjunction with development of the harmonized accreditation criteria, ABET initiated a comprehensive review and update of the Accreditation Policy and Procedure Manual (APPM). The APPM had been developed a decade earlier, for the 1999-2000 accreditation cycle, primarily for the purpose of separating accreditation criteria from policies and procedures. Since then, it had undergone minimal change, and by 2010 was in need of a comprehensive review for clarity, conciseness, and applicability to the current accreditation process.  

As such, a task group of the Accreditation Council prepared a draft update of the APPM and presented it to the ABET Board of Directors at its March 2010 meeting, with the intention of obtaining final approval at the October 2010 meeting. Following the March meeting, the ASCE task committee conducted a careful review of the draft and identified a number of issues, the most important of which concerned approval authority for the APPM itself.

In the draft APPM, certain provisions were highlighted with a bold font, and the remainder were shown in plain text. This graphical format was explained as follows: “Sections in bold font are policies established by the ABET Board of Directors. Sections not in bold font are policies and procedures established by the ABET Accreditation Council and Commissions.” A subsequent paragraph further indicated that “Changes to statements not in bold may be proposed by the Commissions or the Accreditation Council and must be approved by the Accreditation Council.”

Both of these provisions contradicted the ABET Governing Documents (Article 6.B. of the Constitution and Section 4.A. of the Bylaws), which require that policies, procedures, and criteria be approved by the ABET Board of Directors. ASCE considered this an issue of great importance because the ABET Accreditation Council is not a representative body. Only the Board of Directors can fully and appropriately account for the perspectives of the ABET Member Societies in establishing policies and procedures.

The ASCE task committee explained this issue in a letter to ABET, dated May 28, 2010, and provided recommended APPM revisions clearly reinforcing the Board’s responsibility for establishing policies and procedures. ASCE recognized that its recommendations had not been accepted when an updated draft APPM was provided to Board members two weeks prior to the October Board meeting.

At this point, the ASCE task committee decided to take this issue directly to the Board of Directors at the October 2010 Board meeting. The committee prepared a set of draft motions and, in the interest of fairness and openness, sent these motions and their rationale by e-mail to
all Board members and the ABET leadership a week prior to the meeting, such that all would have an opportunity to understand ASCE’s position before being called upon to vote.

Five days later, the ABET President and Executive Director responded with an e-mail to all Board members refuting each of ASCE’s motions and recommending disapproval. With regard to APPM approval authority, their principal rationale was that the ABET Constitution (Article 8) delegates responsibility for conducting accreditations activities to the commissions; and that the commissions are “enabled and appointed by the Board.” ASCE was unconvinced by this argument, because the issue at hand was about establishing policies and procedures, not conducting accreditation activities.

At the meeting, ASCE’s Board members went forward with their two planned motions regarding approval authority for the APPM, and both were approved. From ASCE’s perspective, this decision affirmed the Board’s sole responsibility for approving ABET policies and procedures.

**Program Naming**

Without question, the most complex and controversial accreditation policy issue faced by the ASCE task committee has been program naming. At the heart of this issue is paragraph II.E.4.c.(2) of the APPM: “If a program name implies specialization(s) for which Program Criteria have been developed, the program must satisfy all applicable Program Criteria.” This provision has generally been interpreted to mean that, if a program name does not imply specialization for which Program Criteria have been developed, then the program does not have to satisfy any Program Criteria.

This issue first came to light when a single program with the name “Structural Engineering” sought and attained ABET EAC accreditation at the baccalaureate level. For ASCE, this accreditation was problematic for two distinctly different reasons:

First, there are currently no ABET EAC Program Criteria for the structural engineering curricular area. Thus, consistent with ABET policy, this program was accredited only under the EAC General Criteria. Consequently, the program was (and is) being advertised to the public as an “ABET Accredited Program in Structural Engineering,” implying ABET validation of its highly specialized technical content, even though no such validation occurred. ASCE maintains that, in such situations, the public is being misled (though it must be emphasized that this misleading occurs as a result of this policy, not through any inappropriate intent or action on the part of the program.)

Second, a fundamental premise of ASCE’s “Raise the Bar” initiative is that engineering professionals will be best prepared to meet future challenges by experiencing a broad baccalaureate-level education, augmented by advanced technical specialization at the master’s level. From this perspective, a baccalaureate program in structural engineering (or in geotechnical engineering, hydraulic engineering, or any other civil engineering sub-discipline) is inappropriate, because it provides excessive specialization, at the cost of undergraduate breadth. This is not to deny the potential short-term value of such highly specialized undergraduate degrees to industry, but rather to assert that, over the long term, the public interest is better
served by more broadly educated engineers who are better equipped to deal with the many non-technological dimensions of modern engineering problems.

In exploring this issue, the ASCE task committee quickly came to recognize that the program naming problem extends far beyond a single program in structural engineering. Indeed, it is a broad, systemic issue affecting many disciplines across the engineering, engineering technology, applied science, and computing domains. According to data provided on the current ABET website, ABET currently accredits 91 programs (67 in the U.S., 24 non-U.S.) in this category—programs that have a name implying technical specialization but are accredited under General Criteria only.* And the numbers of these programs have been increasing sharply in the past decade, as illustrated in Figure 1.

![Figure 1. Growth in the number of programs that have a name implying technical specialization but are accredited under General Criteria only.](image)

Furthermore, many of these non-standard program names are quite similar to the names of existing Program Criteria but are still exempted from Program Criteria compliance, because their names do not match exactly. For example:

- Currently accredited programs in Mechatronics Engineering comply with neither the Mechanical Engineering nor the Electrical Engineering Program Criteria.
- An accredited program in Renewable Energy Engineering does not comply with Mechanical Engineering Program Criteria.
- An accredited program in Ecological Engineering does not comply with Environmental Engineering Program Criteria.
- Accredited programs in Plastics Engineering comply with neither the Materials Engineering nor the Chemical Engineering Program Criteria.

* It is important to emphasize that these totals do not include programs named Engineering, General Engineering, Engineering Physics, Engineering Science, and Systems Engineering, all of which have associated Program Criteria.
• An accredited program in Computer Systems and Software complies with neither the Computer Science, nor the Information Systems, nor the Computer Engineering Program Criteria.

ASCE maintains that this ABET policy is inappropriate because the use of a program name by an accredited program inherently implies the fulfillment of minimum standards in the associated curricular area. And program names matter, because they are used to communicate program content to the public, prospective students, student service counselors, parents, educational institutions, professional societies, potential employers, governmental agencies, and state licensing or certification boards. Of particular importance, the standards for professional engineering licensure throughout the U.S. incorporate provisions that simply presume the content of an ABET-accredited engineering degree has been properly vetted—with no further scrutiny of university curricula or individual engineers’ transcripts.

From a strategic perspective, ASCE is concerned that the current lack of control over non-standard program names conflicts with the educational paradigm at the heart of the “Raise the Bar” initiative. Even as ASCE and other professional societies are promoting a broader undergraduate experience augmented by enhanced technical specialization at the master’s level, the ABET policy on program naming permits (and, to some extent, encourages) the creation of narrowly specialized undergraduate degree programs without constraint—and without the oversight of Member Societies that represent the interests of the engineering profession.

ASCE made its first formal attempt to address this issue in late 2009 (prior to the establishment of the Task Committee on Accreditation Policies and Procedures), when the ASCE Educational Activities Committee received inquiries about the possible creation of new programs using non-standard names with the explicit intent of avoiding Program Criteria compliance. At this time, ASCE learned that the ABET Accreditation Council was currently studying the issue of program naming, because of challenges encountered in ABET’s expanding international accreditation program. ASCE entered into a dialog with the Accreditation Council at this time, in the hope that the two organizations’ separate concerns with program naming might be addressed with a single integrated solution. This dialog culminated with a briefing by the Chair of the ASCE Educational Activities Committee to the Accreditation Council in 2010.

In this briefing, ASCE explained the issue, outlined the relevant underlying principles and potential adverse impacts, and provided a recommended solution that employed a well-established ABET governance construct—the Lead Society. ASCE recommended that: (1) all program names should be associated with a Lead Society, designated by the ABET Board; (2) that each Lead Society should either endorse or recommend disapproval of its designated program names at both the baccalaureate and master’s levels; and (3) that all program names would ultimately be subject to approval by the ABET Board.

This proposal was derived directly from existing provisions of the ABET Constitution and By-Laws—most notably Section 14.D.2. of the By-Laws, which specifies that “A Member Society having primary responsibility for a particular curricular area will be designated by the Board as Lead Society for that particular curricular area.”
Although the Accreditation Council did not provide ASCE with formal feedback on the January 2010 presentation, it was clear from the nature of the questioning and discussion that the Council disagreed with ASCE on the nature and extent of the problem and did not endorse ASCE’s recommendations. Specifically, the Accreditation Council maintained that:

- Program naming is strictly an institutional prerogative.
- Imposing any approval process on program names would be administratively burdensome and would inhibit the development of innovative programs.
- A Member Society can always exercise control over a program name by either (1) establishing Program Criteria for that program name or (2) adding the program name to the “applicability clause” of existing Program Criteria.

ASCE disagreed with these positions, and continues to do so, on the following grounds:

- Although each institution has a prerogative to name its own programs, ABET should not assume an obligation to accredit these programs without appropriate scrutiny.
- It is quite possible to develop approval mechanisms that are based entirely on existing ABET processes and are not administratively burdensome.
- Curricular innovation should be based on a program’s content, not its name.
- Establishing new Program Criteria is not an adequate solution to the program naming problem—particularly in the context of ASCE’s “Raise the Bar” initiative. Consistent with the underlying philosophy of this strategic initiative, ASCE maintains that the baccalaureate-level accreditation of specialty sub-disciplines like structural and geotechnical engineering is inappropriate. Thus establishing baccalaureate-level Program Criteria in these curricular areas would contradict ASCE’s own policy (as articulated in Policy Statement 465). ASCE would support the development and implementation of master’s-level Program Criteria for these curricular areas; however, master’s-level Program Criteria are currently prohibited by ABET EAC policy.
- Adding a program name to the “applicability clause” of existing Program Criteria is also not an adequate solution. It is impractical, because it would require frequent updates of the applicability clause and, even then, could probably not cover all possible alternative program names. More importantly, this proposed solution is inappropriate, because it could mislead the public in some circumstances. For example, if geotechnical engineering were added to the applicability clause of the Civil Engineering Program Criteria, a program calling itself “Geotechnical Engineering” would be under no obligation to offer any enhanced geotechnical engineering content; it would only need to comply with the provisions of the Civil Engineering Program Criteria (which include no specific requirements for geotechnical content). Thus the program name could still mislead the public about the program’s content.

* This could be achieved, for example, by changing the opening paragraph of the Civil Engineering Program Criteria from “These program criteria apply to engineering programs that include ‘civil’ or similar modifiers in their titles” to “These program criteria apply to engineering programs that include ‘civil’, ‘geotechnical’, ‘structural’, or similar modifiers in their titles.”

** Section III of the current EAC Criteria for Accrediting Engineering Programs states that “Program Criteria provide the specificity needed for interpretation of the baccalaureate level criteria [emphasis added] as applicable to a given discipline.” This provision does not exist in the other three commissions’ criteria.
Subsequent to the January 2010 briefing, the Accreditation Council did initiate two actions intended to address ASCE’s concerns:

- The Council recommended changing the “Find Accredited Programs” database on the ABET website to reflect which Program Criteria, if any, were used as the basis for each program’s accreditation. Programs accredited only under the General Criteria were annotated as such.
- The Council recommended a change to Section II.G.5.a(2) of the APPM, specifying that “For a program in a curricular area where no Lead Society has been designated, the program evaluator will be selected from a member society that the commission leadership, in consultation with the program and representatives of any potentially interested member society(ies), believes most closely encompasses the program’s technical content.”

ASCE supported both of these changes but found them inadequate as solutions to the program naming problem. The website change is based on an unrealistic assumption that members of the general public can distinguish between various types of criteria; and the APPM modification unrealistically assumes that selecting a program evaluator will guarantee the consistency between a program’s name and its technical content, in the absence of discipline-specific criteria.

Convinced that program naming remains a serious issue that adversely affects the engineering profession and the public, ASCE has continued to work on developing an effective solution that will be acceptable to ABET and its Member Societies. In the three years since its establishment, the ASCE Task Committee on Accreditation Policies and Procedures has taken the following actions:

- On February 15, 2010, ASCE sent a letter to ABET formally proposing a series of APPM changes that would address the program naming problem. ABET did not incorporate any of ASCE’s recommendations into the APPM.
- ASCE reiterated its recommendations as part of its comprehensive response to the APPM review process described above. These recommendations were incorporated into ASCE’s letter to ABET, dated May 28, 2010. In response, ABET included a “Report on Program Naming,” dated October 6, 2010, with the published agenda for the upcoming meeting of the ABET Board. This report, authored by the Accreditation Council Chair, outlined the Council’s prior actions to address ASCE’s concerns and stated its opposition to ASCE’s recommended APPM changes.
- In preparing for the October 2010 ABET Board meeting, ASCE initially planned a motion to implement its recommended program naming policy through changes to the APPM. However, in view of the complexity of this issue and the meeting’s focus on other equally controversial issues (the harmonized criteria and governance issues outlined above), ASCE ultimately decided to defer its program naming motion to a future Board meeting.
- On September 9, 2011, ASCE sent a letter to ABET notifying the Executive Committee that ASCE would make a motion on program naming at the October 2011 Board meeting and requesting to be included in the agenda. The letter (provided as Appendix A to this paper) included proposed changes to the APPM and the corresponding rationale.
In preparing for the October 2011 Board meeting, the ASCE task committee discovered an alternative approach to solving the program naming problem—one that was considerably simpler and even less administratively burdensome than the approach that had already been communicated to ABET on September 9. At the Board meeting, rather than make a hasty last-minute change to their proposal, the ASCE Board members withdrew their motion, provided a short overview of their revised proposal (with a one-page handout), and promised to develop the concept fully and present it as a motion at the March 2012 Board meeting.

On February 10, 2012, ASCE sent its revised motion in a letter to ABET for inclusion in the agenda of the March 2012 Board of Directors meeting (see Appendix B). In addition to the motion and rationale, the ASCE package included a listing of all 75 relevant programs (i.e., those having names implying technical specialization but accredited under General Criteria only), bar charts showing the growth of these programs over time, a flowchart illustrating ASCE’s simplified proposal (see Appendix C), and an extensive set of “frequently asked questions” addressing the proposal, its implementation, and potential points of opposition. Upon receipt of ASCE’s letter, the ABET leadership circulated the proposal to the Accreditation Council and the Academic Advisory Council, though not to the Industry Advisory Council. The chairs of the Accreditation Council and the Academic Advisory Council then wrote a statement opposing ASCE’s motion, and this statement was published with the motion in the Board agenda.

After the Board agenda was published, ASCE’s three Board members individually contacted all other members of the Board and offered to discuss the proposal and answer questions. At the Board meeting, ASCE made and explained its motion and distributed a one-page handout outlining the program naming issue and the proposed solution. After an abbreviated discussion, the motion was defeated.

As of this writing, the program naming issue remains unresolved. Since the defeat of ASCE’s proposal in March 2012, the number of programs having names implying technical specialization but accredited under General Criteria only has increased by over 20%. ASCE suggests that the problem is not going away and continues to seek alternative approaches to solving it.

Assessment

In the three years of its existence, the ASCE Task Committee on Accreditation Policies and Procedures achieved several noteworthy successes:

- The committee facilitated an ABET Board decision that definitively affirmed the Board’s authority to approve all ABET policies and procedures.
- The committee raised awareness of ambiguity in the current EAC General Criteria regarding the attainment of Student Outcomes and prompted an “on the record” assurance from the ABET EAC Chair that the new criteria do, in fact, require outcome attainment.
- The committee identified and articulated the program naming issue, and developed a viable and coherent solution, albeit one that has not yet been accepted.
- The committee has also fostered a consensus between ASCE and the Structural Engineering Institute (SEI) that the master’s degree should be considered the entry-level degree for structural engineering. In arriving at this position, the SEI Board of Directors
did not support the concept of structural engineering programs being accredited at the baccalaureate level.

The task committee’s failures were perhaps even more significant than its successes. Even with the support of NCEES, the committee made no progress toward achieving better consistency in ABET’s definition of one year of study. And despite over two years of intensive effort, the committee achieved only two modest concessions on the program naming issue, while failing to win a majority of the ABET Board’s support for its more comprehensive solution.

Conclusion

These failures notwithstanding, the most important achievement of the ASCE Task Committee on Accreditation Policies and Procedures was to demonstrate the critical need for a standing committee appropriately organized for strategic engagement with ABET. Many of the issues identified in this paper have existed for at least a decade; yet only after forming the task committee was ASCE able to recognize these issues’ strategic implications and respond appropriately.

This evident need has been recognized with the creation of ASCE’s new Committee on Accreditation (COA), established in the fall of 2012 as part of the Society’s committee restructuring initiative. With the “sunsetting” of the Task Committee on Accreditation Policies and Procedures, the COA has now assumed the task committee’s mission and, with only minor variations, its organizational structure as well. Through the establishment of the COA, ASCE is now equipped to continue engaging with ABET on unresolved accreditation policy issues, while also responding to new issues as they arise—all in concert with the Society’s broader strategic goals for the engineering profession.

References

September 9, 2011

To: Executive Committee, ABET Board of Directors
   (Attn: Vincent A. Fields, Sr.; Senior Assistant to Executive Director)

From: American Society of Civil Engineers (ASCE)

Subject: Motions for October 29, 2011 Meeting of the ABET Board of Directors

The purpose of this letter is to notify the Executive Committee of a motion prepared by the American Society of Civil Engineers (ASCE) for presentation to the ABET Board of Directors at their October 29, 2011 meeting. Request that this letter and the associated motion be included in the meeting’s agenda and shared with the members of the Board well in advance of the Board’s upcoming meeting.

These recommendations were developed by an ASCE task committee consisting of:

1. Larry Feerer – ASCE appointee, ABET Board of Directors
2. Paul Taylor – ASCE appointee, ABET Board of Directors
3. Wayne Bergstrom – ASCE appointee, ABET Board of Directors
4. Amit Bandyopadhyay – ASCE representative, Technology Accreditation Commission
5. David Binning – ASCE representative, Engineering Accreditation Commission
6. Stephen Ressler – Chair, ASCE Educational Activities Committee
7. Bill Hightower – Member, ASCE Committee on Curricula and Accreditation
8. Jeffrey Russell – Chair, ASCE Committee on Academic Prerequisites for Professional Practice
9. Tom Lenox – Executive Vice President (PESI), ASCE
10. Jim O’Brien – Managing Director of Educational and Professional Activities, ASCE

This task committee has identified two significant shortcomings related to “program naming” associated with the Accreditation Policy & Procedure Manual (October 2010). It is ASCE’s position that some of the operational procedures used by ABET are inconsistent with (1) ensuring the public’s safety and (2) Sections Nine and Fourteen of the ABET Bylaws.
ISSUE:

Section II.E.4.a of the APPM currently states:

_The program name must be descriptive of the content of the program._

This provision is appropriate, as it ensures consistency between the program name and program content; however, it is insufficient, in that it fails to address the appropriateness of the program name itself.

RECOMMENDATION:

ASCE recommends that the following new Section II.E.4.b should be inserted into the APPM:

**II.E.4.b.** Given ABET’s role in assuring the competence of graduates entering professional practice, the program name must reflect appropriate norms of professional practice. As such, the names of all programs to be accredited must be approved by the ABET Board of Directors.

**II.E.4.b.1** If an educational institution chooses to use a program name that has been previously approved for accreditation by the ABET Board of Directors, then no request for approval of the program name is required.

**II.E.4.b.2** If an educational institution chooses to use a program name that has not been previously approved for accreditation, then the institution must request approval of that program name by the ABET Board of Directors. In conjunction with the review and approval process, the Board will designate a Lead Society for the new program name, after consultation with the appropriate commissions and any potentially interested member societies.

**II.E.4.b.3** The Board will review the status of all existing program names without a Lead Society at least every two years and, if appropriate, designate appropriate Lead Societies for those program names.

In conjunction with this insertion, the current Sections II.E.4.b and II.E.4.c should be renumbered as II.E.4.c and II.E.4.d, respectively.

DISCUSSION/RATIONALE:

In a letter to the Council for Higher Education Accreditation (CHEA), dated May 19, 2010, ABET’s position regarding program naming was stated as follows:

ABET believes the name of the program should reflect the curriculum and is very important for students, parents, employers, and the general public. Those groups expect that a graduate has a specific body of knowledge and skill set based on the program title, and the criteria used to evaluate that program. This is the basis for “truth in advertising,” and has been fundamental to ABET accreditation for the past 75 years, and is crucial to helping ensure public safety.

ABET is concerned that ATM&E is misleading students, parents, employers and the public by insisting that curricular content matters, but not the name.
ASCE could not agree more: the program name matters. The use of a particular program name by an accredited program implies the fulfillment of minimum standards in a specific curricular area. The program name communicates program content to the public, prospective students, student service counselors, parents, educational institutions, professional societies, potential employers, governmental agencies, and state licensing or certification boards. Furthermore, when a program is accredited by ABET, there is an implied ABET endorsement of the associated program name in the eyes of these stakeholders.

This implied endorsement notwithstanding, the current APPM does not provide any actual mechanism for ensuring the appropriateness of program names. If an institution chooses a program name never previously accredited by ABET and without associated program criteria, there is no mechanism for ensuring that the program name meets the norms of professional practice. ASCE believes that such a mechanism is essential. If ABET does not exercise purposeful control over the program names it implicitly endorses, then the public will inevitably be misled by program names that do not reflect the norms of professional practice. ABET has an obligation to exercise such control, because of its responsibility for assuring that the graduates of accredited programs are prepared for professional practice (as specified in the ABET Constitution, Article Two, paragraph B).

The only feasible mechanism for exercising control over program names is approval by the ABET Board of Directors. The norms of professional practice are best discerned by the Member Societies, and the Board of Directors is the only ABET governance body that is fully representative of the Member Societies.

Is it appropriate for the ABET Board of Directors to be involved in approving program names? ASCE strongly believes that it is. Indeed, the ABET Board has already provided de facto approval of all program names associated with current program criteria, through the Board’s role in formally approving these criteria. Only those program names that are not associated with current program criteria have escaped scrutiny and approval by the Board—yet these very program names are the ones most likely to mislead the public.

ASCE believes that problems associated with program names will be exacerbated as ABET continues its expansion of international programs. With the potential for accreditation requests from international institutions using a multitude of new program names, ABET must be equipped to fulfill its fundamental responsibility to ensure “truth in advertising” and public safety.

As ASCE’s recommended change to the APPM suggests, the need for scrutiny of program names is inextricably tied to the designation of Lead Societies. As stated by ABET in its May 2010 letter to CHEA:

ABET believes the name of the program should reflect the curriculum and is very important for students, parents, employers, and the general public. Those groups expect that a graduate has a specific body of knowledge and skill set based on the program title, and the criteria used to evaluate that program. [underlining added]

Of the many stakeholders with an interest in a particular program name, the Member Society associated with the corresponding curricular area is best equipped to provide in-depth understanding of the disciplinary body of knowledge, the norms of professional practice, and the curricular implications of using a given program name. This Member Society should be designated as the Lead Society by the Board.
Is it appropriate for the ABET Board of Directors to be involved in designating Lead Societies? ASCE strongly believes that it is. Indeed, the requirement for the Board to formally designate Lead Societies is already well established in the ABET governing documents. Section Nine (paragraph E) of the ABET Bylaws states that “The Board shall vote on matters of substance, including but not limited to . . . assignment of programs to Members . . . .” Section Nine is reinforced by Section Fourteen of the Bylaws. Section Fourteen (paragraph D.2) states that “A Member Society having primary responsibility for a particular curricular area will be designated by the Board as Lead Society for that particular curricular area.”

Why is ASCE so concerned about program names and the designation of Lead Societies? We expect that, in the future, ABET will receive requests for the accreditation of programs using names that effectively bypass the oversight of an appropriate Lead Society. Even today, there are existing program names that (1) were never approved by the ABET Board and (2) did not have an appropriate Lead Society designated by the ABET Board. As a result, ASCE believes that the public is being misled regarding the meaning of these program names and that the public’s trust in ABET is being compromised as a result.

In short, ASCE believes that ABET, advised by the appropriate Lead Society (or Societies) and commissions, must be the vigilant gatekeeper of the names used by accredited programs.

SUMMARY:

The use of a program name by an accredited program implies the fulfillment of minimum standards in a specific curricular area. The program name communicates curricular content to the public, prospective students, student service counselors, parents, educational institutions, professional societies, potential employers, governmental agencies, and state licensing or certification boards. Furthermore, when a program is accredited by ABET, there is an implied ABET endorsement of the associated program name in the eyes of these stakeholders.

ASCE believes that this implied endorsement must be backed up by actual scrutiny and approval of program names by the ABET Board of Directors. ABET, advised and assisted by its commissions and member societies, must be the vigilant gatekeeper of the names used by accredited programs. ASCE has recommended a change to Section IIE.4 of the APPM that explicitly allows the ABET Board of Directors to fulfill its fundamental responsibilities related to program naming and curricular content.

To do less is to cheapen the ABET “gold standard” of accreditation.

Thank you for your consideration.

Sincerely,

Larry J. Feeser, Ph.D., P.E., Hon.M.ASCE
ABET Board of Directors
Appendix B – ASCE Motion to Address the Program Naming Issue at the March 2012 Meeting of the ABET Board of Directors

February 10, 2012

To: Executive Committee, ABET Board of Directors
   (Attn: Vincent A. Fields, Sr.; Senior Assistant to Executive Director)

From: American Society of Civil Engineers (ASCE)

Subject: Motion for March 24, 2012 Meeting of the ABET Board of Directors

The purpose of this letter is to notify the Executive Committee of a motion prepared by the American Society of Civil Engineers (ASCE) for presentation to the ABET Board of Directors at its March 24, 2012 meeting. Request that this letter and the associated motion be included in the agenda and shared with the members of the Board well in advance of the meeting.

This motion was developed by an ASCE task committee consisting of our three Board members, ASCE EAC and ETAC commissioners, and representatives of ASCE’s Committee on Academic Prerequisites for Professional Practice, Committee on Curricula and Accreditation, and staff.

THE PROBLEM—THE PROGRAM NAMING LOOPHOLE

The Program Name of an accredited program communicates that program’s content to the public, prospective students, counselors, parents, educational institutions, professional societies, employers, government agencies, and state licensing boards. From the perspective of these stakeholders, ABET accreditation under a particular Program Name implies the fulfillment of minimum standards in a specific curricular area, as defined by the engineering profession. ABET’s existing mechanism for ensuring that discipline-specific standards are being fulfilled is the establishment of Program Criteria formulated by the appropriate Lead Society or Societies.

Unfortunately, the current ABET Policies and Procedures Manual (APPM) does not provide any actual mechanism for ensuring that all programs meet the minimum standards implied by their Program Names. By using a Program Name that is not associated with any existing Program Criteria, a program is currently accredited under the General Criteria only. Thus the program is accredited without any assurance that it meets minimum standards in its associated curricular area. In such cases, the public is unequivocally being misled. This is the problem—the Program Naming Loophole.

There are currently 75 programs that have been accredited by ABET with no Program Criteria and thus no Lead Society oversight. (See Enclosure 1.) These programs use 55 unique Program Names that have never been approved by the ABET Board. As shown in Enclosure 2, the number of these “Loophole Programs” has undergone a dramatic increase in the past decade. This upsurge includes significant numbers of international programs; however, approximately two-thirds of current Loophole Programs are in the U.S. The rate of increase in the number of Loophole Programs is far greater than that of accredited programs as a whole. ASCE is very concerned about this upward trend in misleading Program Names; we believe that ABET has an obligation to close the Program Naming Loophole, because of its responsibility for assuring that the graduates of these accredited programs are appropriately prepared for professional practice in their disciplines.
ASCE’S PROPOSED SOLUTION

ASCE Proposes that the following new sub-paragraph be added to section II.E.4 of the APPM:

*Every program must have an approved program name. A program name is approved through the establishment of a Lead Society (or Lead Societies) and Program Criteria listing the program name in the associated applicability clause.*

ASCE further proposes that this change be made effective for the 2018-19 accreditation cycle, to give all programs adequate time to implement the change.

HOW ASCE’S PROPOSED SOLUTION WOULD WORK

The implementation of ASCE’s proposed solution is illustrated as a flowchart in Enclosure 3. Although it might appear complicated, this flowchart depicts only existing ABET processes and procedures. ASCE’s proposal adds no new processes; it seeks only to eliminate one flawed process—the loophole described above and marked with X’s on the flowchart.

ASCE’s proposal is best illustrated by example. Suppose an institution wishes to establish a new program in Instrumentation Engineering—a Program Name for which no Program Criteria currently exist. That institution would approach an appropriate ABET Member Society—say IEEE—to request that new Program Criteria for Instrumentation Engineering be established. IEEE would then have four choices:

1. Change the applicability clause of the existing Program Criteria for Electrical, Computer, and Similarly Named Engineering Programs to include Instrumentation Engineering (Path 1 in the flowchart). In this case, the new program could use the name “Instrumentation Engineering” and would comply with the existing IEEE Program Criteria.

2. Formulate new discipline-specific Program Criteria for Instrumentation Engineering (Path 2). In this case, the new program could use the name “Instrumentation Engineering” and would comply with new IEEE-sanctioned minimum standards for this particular curricular area.

3. Formulate new non-discipline-specific Program Criteria for Instrumentation Engineering (Path 3). These criteria specify simply that “There are no program-specific criteria beyond the General Criteria.” In doing so, IEEE would be assuming responsibility as Lead Society for Instrumentation Engineering, while also establishing that no minimum standards are necessary for this particular curricular area (just as ASME, CSAB, IEEE, IEEE, IIE, ISA, ICSE, and SAE have currently done for Systems Engineering). In this case, the new program could use the name “Instrumentation Engineering” and would need to comply with no discipline-specific standards beyond the General Criteria.

4. Decline to serve as Lead Society. In this case, the program could seek out another Lead Society or could choose to seek accreditation under the name “Engineering” or “Engineering Science” (Path 4) or could choose to seek accreditation under an existing approved Program Name, such as “Electrical Engineering” (Path 5). In the either case, the program could maintain its unique identity by offering an option in “Instrumentation Engineering.”

Note that all paths through the flowchart result in accreditation, and that all paths ensure Board approval of the Program Name (through the approval of appropriate Program Criteria and an associated Lead Society assignment). Note also that the hypothetical program in Instrumentation Engineering would have ample time to work through this process. As a new program, it could not possibly seek accreditation for four years after its establishment, because it would have to produce graduates before seeking accreditation. Thus the program would have at least four years to pursue its chosen path to accreditation.

For more in-depth discussion of other procedural and implementation issues, please see the frequently asked questions (FAQs) provided in Enclosure 4 of this letter.
APPLICABILITY ACROSS COMMISSIONS

Although the example above uses a hypothetical EAC program, ASCE’s proposed solution is applicable to all four ABET commissions. In the flowchart (Enclosure 3), all paths except Path 4 are currently being used by all four commissions. With regard to Path 4, Program Criteria for “Engineering” and “Engineering Science” are included in the current EAC Criteria, and Program Criteria for “Engineering Technology” are included in the current ETAC Criteria. Equivalent Program Criteria have not yet been adopted by CAC or ASAC, but there is no impediment to such adoption should these commissions deem it necessary.

POTENTIAL POINTS OF OPPOSITION

ASCE recognizes that this proposal will be opposed on several points, the most important of which are presented below, along with a brief ASCE response. More detailed responses are provided as FAQs in Enclosure 4.

1. **The proposal will inhibit innovation.** ASCE contends that the proposal will not inhibit innovation, because true innovation is a function of the program’s content, not its name. In ASCE’s proposal, all paths result in accreditation; and any program, regardless of its situation, will always have at least one accreditation path that requires no changes whatsoever to its program content.

2. **The proposal will deny the program the ability to market its unique content.** ASCE contends that, under this proposal, the program will be able to market its unique content either by (a) fostering the inclusion of the proposed unique Program Name in the applicability clause of existing Program Criteria, (b) fostering the development of appropriate new Program Criteria for the proposed unique Program Name, or (c) accrediting the program under the existing Engineering, Engineering Science, or Engineering Technology criteria and using a named option to market its unique content.

3. **The proposal will be administratively cumbersome.** ASCE’s proposal creates no new processes, procedures, or systems; it uses well-established existing ABET processes. It protects the public solely by removing the Program Naming Loophole in the existing APPM.

4. **Proposal would result in denial of accreditation based on Program Names.** As clearly demonstrated in the flowchart (Enclosure 3), ASCE’s proposal provides a wide variety of alternative pathways, each corresponding to a free choice by the program or the Member Society, and all leading to accreditation.

THE BOTTOM LINE

ASCE is deeply concerned about the existing ABET Program Naming Loophole. This policy loophole allows a program to be accredited under a Program Name that implies fulfillment of minimum standards in a particular curricular area, even though no such standards exist. This problem is getting significantly worse, as the number of Loophole Programs is rising at a sharply increasing rate. ASCE’s proposed solution addresses this problem in a way that protects the public, creates no new bureaucratic processes, engages Member Societies in setting appropriate disciplinary standards, ensures appropriate oversight by the ABET Board, and provides programs with considerable flexibility and ample time for implementation.

Thank you for your consideration.

Sincerely,

Larry J. Feeser, Ph.D., P.E., Hon.M.ASCE
ABET Board of Directors
**Proposed Program Name**

Are there existing Program Criteria?

- YES
  - Change Program Name to "Engineering" or "Engineering Science" or "Engineering Technology"

- NO
  - Is an appropriate Member Society willing to serve as Lead Society?
    - NO
      - No Lead Society
      - No Program Criteria
      - No Board approval
    - YES
      - THE LOOPHOLE

Can Program Name legitimately be added to the Applicability Clause of existing Program Criteria?

- YES
  - Modify Applicability Clause of existing Program Criteria
  - Board approves modified Program Criteria
  - ACCREDIT using modified Program Criteria

- NO
  - Does the Lead Society want discipline-specific criteria?
    - YES
      - Formulate new discipline-specific Program Criteria
      - Board approves new Program Criteria
      - ACCREDIT using new program-specific Program Criteria

    - NO
      - Formulate new non-discipline-specific Program Criteria*
      - Board approves new Program Criteria
      - ACCREDIT using non-discipline-specific Program Criteria*

Institutional preference?

- YES
  - Change Program Name to "Engineering" or "Engineering Science" or "Engineering Technology"

- NO
  - ACCREDIT using General Criteria only

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*For the purpose of this flowchart, the term non-discipline-specific Program Criteria refers to Program Criteria specifying that "There are no program-specific criteria beyond the General Criteria;" e.g., the current EAC Systems Engineering Program Criteria.

**Program Criteria for "Engineering" and "Engineering Science" are provided in the EAC Criteria; Program Criteria for "Engineering Technology" are provided in the ETAC Criteria; equivalent Program Criteria have not yet been adopted by CAC or ASAC, but there is no impediment to such adoption should these commissions deem it necessary.