COMMITTEE ON EDUCATION

FAQs on the ABET General Criteria, Civil Engineering Program Criteria, and the Civil Engineering Body of Knowledge

Updated: Proposed January 2025

The purpose of this document is to provide answers to frequently asked questions (FAQs) and information on:

- ABET accreditation criteria, structure, and processes;
- the role of ASCE in ABET accreditation governance and in development of Program Criteria; and
- the Civil Engineering Body of Knowledge.

As such, this document is significantly connected to the civil engineering program criteria development process.

This document is intended to serve as a resource for ASCE leaders, volunteers involved in accreditation activities, Civil Engineering Department Heads and Chairs, members of ASCE committees, and any other individuals who have an interest in the educational activities of ASCE. Responsibility for the document is as follows:

- ASCE Committee on Accreditation (COA) provides an annual review and updates to the Committee on Education (COE).
- COE is responsible for sharing and receiving comments from other constituencies and for distributing the document to interested entities and posting this document on the ASCE accreditation web site.

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ABET General Criteria, Civil Engineering Program Criteria, and the Civil Engineering Body of Knowledge

FAQs

Q1. What is "ABET"? What is ASCE's role in ABET governance and accreditation operations?

- ABET is a federation of 34 member societies, which represent the engineering, engineering technology, computing, and applied and natural science disciplines that ABET accredits. ASCE is one of these member societies.

- ABET has a small professional staff in its headquarters in Baltimore, and ABET's accreditation mission, to accredit engineering programs, is performed primarily by volunteers from the member societies.

- ASCE is active in ABET governance. ASCE's views and interests are promoted by our volunteers who serve on the ABET Board of Delegates, Area Delegations, and Commissions. A summary of ASCE representation in ABET Governance is shown in **Appendix A**. For more information about ABET governance, see https://www.abet.org/about-abet/

- All civil, architectural, and construction engineering and engineering technology programs are evaluated by ASCE volunteers serving as ABET Program Evaluators (PEVs).

Q2. Why is ABET accreditation of engineering programs important?

- Accreditation demonstrates that an engineering program meets *quality standards* set forth by the engineering profession. These standards are specified in two categories of accreditation criteria:

  - General Criteria – applicable to all engineering disciplines; must be approved by a majority of engineering societies (e.g., ASCE, ASME, IEEE, etc.).

  - Program Criteria – applicable to a single engineering discipline; developed by one or more ABET member societies designated as Lead Societies for the discipline; must be approved by a majority of engineering societies.

- In most licensing jurisdictions, a degree from a program accredited by the Engineering Accreditation Commission (EAC) of ABET satisfies the educational requirement for professional engineering licensure.

- ABET accreditation of engineering technology programs supports licensure in states that allow licensure of Engineering Technology (ET) graduates.

Q3. What are the requirements under the General Criteria and the Program Criteria?

- Summaries of the eight ABET EAC General Criteria and the Civil Engineering Program Criteria are provided in **Appendix B** and **Appendix C**.

Q4. Do the ABET criteria specify courses, numbers of courses, or credit hours (units)?

- No. Neither the ABET EAC General Criteria nor the Civil Engineering Program Criteria specify any particular courses or numbers of courses.

- The EAC General Criteria specify that, effective Fall 2019, an accredited program must have a minimum of 30 semester credit hours (or equivalent) of mathematics and basic sciences and 45 semester credit hours (or equivalent) of engineering topics.

- The ABET Criteria do not specify the minimum number of credit hours required for graduation.

Q5. What is ASCE's role in the development of Program Criteria?

- ASCE serves as the Lead Society with responsibility for developing and updating Program Criteria for six curricular areas—Civil Engineering, Architectural Engineering, Construction Engineering, Civil Engineering Technology, Architectural Engineering Technology, and Construction Engineering Technology.

- ASCE serves as a Co-Lead Society for Ecological Engineering along with the American Academy of Environmental Engineers and Scientists and the American Society of Agricultural and Biological Engineers.

- ASCE serves as a Cooperating Society for EAC Program Criteria in three curricular areas—Environmental Engineering, Ecological Engineering, Engineering Management, and Surveying Engineering. The Lead Societies for these program criteria are the American Academy of Environmental Engineers and Scientists, the Institute of Industrial and Systems Engineers, and the National Society for Professional Surveyors, respectively.

Q6. Which programs are required to satisfy the Civil Engineering Program Criteria?

- Any engineering program with a program name that includes the word "civil" (or similar modifier) must satisfy the Civil Engineering Program Criteria.

Q7. If a program chooses not to meet the Civil Engineering Program Criteria (CEPC), can it still seek ABET-EAC accreditation? Are there any examples of these programs?

- A program that chooses not to meet the CEPC can still seek ABET Accreditation in two ways:

    - If the program name does not correspond to any of the current Program Criteria, then the associated program is only required to satisfy the General Criteria. Therefore, a program named something other than "civil engineering" that does not invoke other existing program criteria would only be required to satisfy the General Criteria.

- A program can be accredited under the General Criteria only, if its program name includes the words "engineering" (without modifiers), "general engineering," "engineering physics," or "engineering science." Therefore, the program could use any of these program names.

- In the second case above, a General Engineering program (which would typically be named General Engineering or Engineering) can offer an option or concentration in Civil Engineering without having to satisfy the Civil Engineering Program Criteria.

Q8. Who developed the Civil Engineering Program Criteria (CEPC), when, and what was the process?

- The current CEPC were developed by the ASCE Civil Engineering Program Criteria Task Committee (CEPCTC), established in 2019. The CEPCTC reported to the ASCE Committee on Accreditation (COA)—a constituent committee of the Committee on Education (COE). The two-year process used to develop these criteria was open, rigorous, and used a scholarly approach. The process included several rounds of input and feedback from all relevant constituencies, including CE Department Heads and Chairs. The cycle for updating the Civil Engineering Program Criteria is presented in **Appendix E**.

Q9. What sources of information were used to develop the CEPC?

- The two principal sources of information used to formulate the current edition of the CEPC were (1) the previous edition of the CEPC and (2) the *Civil Engineering Body of Knowledge, 3rd Edition* (CEBOK3). The CEBOK3 Outcomes presented in **Appendix D**.

Q10. Why is the Civil Engineering Body of Knowledge (CEBOK) used to develop the CEPC?

The CEBOK3 identifies 21 interrelated outcomes in four categories that prepare future civil engineers to assume responsible charge. The four outcome categories are foundational, engineering fundamentals, technical, and professional. Using the CEBOK as the principal basis for formulating the CEPC ensures that the ASCE Board's strategic vision and ASCE policies are appropriately reflected in accreditation criteria for civil engineering programs, and consequently, in the education of future civil engineers. The current CEPC strongly reflects key provisions of these references and the ASCE Strategic Goals at the time the CEPC were developed, including an increased emphasis on sustainability, risk, uncertainty, public policy, and safety. Many resources are available on the ASCE website to explain the current CEPC.

Q11. Do the current CEPC prescribe the full attainment of all CEBOK3 outcomes?

- No. There is an appropriate gap between the aspirational outcomes specified in the CEBOK3 and the minimum standards reflected in the CEPC, especially as some of the CEBOK3 outcomes are best attained after graduation and during the early years of a civil engineer's journey toward responsible charge. References at the end of this document discuss the gap between CEBOK3 and the ABET General Criteria (Fridley et al, 2019) or prior versions of the CEPC and BOK2 (Estes et al., 2015).

Q12. What is the Civil Engineering Body of Knowledge (CEBOK)?

The CEBOK outlines 21 foundational, technical, and professional practice learning outcomes for individuals entering into responsible charge in the practice of civil engineering. ASCE's Policy Statement 568, Fulfilling the Civil Engineering Body of Knowledge for Responsible Charge of Civil Engineering demonstrates ASCE's commitment to the expectation of this level of knowledge for civil engineers acting in responsible charge.

Q13. Why is an 8-year cycle used for reviewing and updating the BOK and the CEPC?

- The 8-year cycle for BOK and CEPC development, shown in **Appendix E**, was developed based on the recognition that (1) regular updates are essential for keeping the CEPC current and relevant to the needs of the profession; (2) predictable change is more manageable for ASCE and for CE Programs than *ad hoc* change; and (3) ABET accreditation is implemented on a 6-year cycle.

- Using a CEPC cycle shorter than 6 years would mean that the criteria are changed twice within a given review cycle for some CE programs and thus would likely place an undue burden on these programs. A CEPC cycle of exactly 6 years would mean that the same programs are constantly at the leading or trailing edge of criteria changes, and consequently, would also be burdensome for programs. Given the rapid pace of technological change, a cycle much longer than 8 years would likely not be sufficiently responsive to the changing needs of the profession. The 8-year cycle was selected as an appropriate compromise among these competing criteria, while also allowing sufficient time for the work of the relevant ASCE committees.

Q14. Do the ABET accreditation requirements inhibit curricular innovation?

- No. By specifying student outcomes, curricular topics, and minimum numbers of math, science, and engineering credit hours, the ABET accreditation requirements place constraints on engineering curricula; nonetheless, these requirements still allow ample room for curricular innovation. Several analyses have demonstrated that a baccalaureate-level civil engineering program can comfortably meet minimum ABET standards while still allowing at least one full year of flexible curricular content. (e.g., see Swenty and Swenty, **Appendix F**.)

- Another study has demonstrated that most civil engineering programs incorporate curricular content in excess of ABET requirements. For example, the median number of CE technical areas included in 131 surveyed programs was six, even though the ABET-specified number is only four. (See Hamilton et al, **Appendix F**)

Q15. What is the CEPC Commentary? Why was it developed? How is it updated?

- ASCE's CEPC Commentary is an unofficial (i.e., internal to ASCE and not sanctioned by ABET) document that is intended to assist ASCE Program Evaluators (PEVs) and CE faculty and department heads in interpreting the relevant criteria provisions unambiguously. The CEPC Commentary interprets existing criteria; no additional criteria are specified in the Commentary.

- The CEPC Commentary addresses CE educators' long-standing concern about vagueness in the Civil Engineering Program Criteria and promotes consistency in application of the criteria in reviews of programs. Given the specific guidance provided by the Commentary, the possibilities for disagreements between Program Evaluators and program faculty regarding interpretation of the criteria are greatly reduced. The CEPC Commentary was developed, in part, in response to requests from the Civil Engineering department heads for additional clarity and direction on the CEPC. It was developed with the aim of achieving a balance between providing specific guidance while preserving flexibility for curriculum tailoring to desired program emphases and innovation.

- Development of the CEPC Commentary is consistent with ASCE's responsibility as Lead Society of Civil Engineering Programs to educate Program Evaluators on the program criteria and its use in conducting accreditation reviews. The CEPC Commentary is a resource for Civil Engineering programs and provides many specific examples of how programs could comply with the CEPC; they are not intended to be prescriptive examples.

- The CEPC Commentary is intended to be a living document that is regularly updated in response to the needs of constituents and stakeholders. It is developed by the CEPC Task Committee upon revision of the CEPC. It is the ongoing responsibility of the ASCE Committee on Accreditation Operations (COAO) to maintain and update the Commentary.

- Future discussions related to the Civil Engineering Program Criteria will evaluate how to adapt the Commentary in the face of quickly-evolving topics and technologies within the field. The COA has developed a process for review of Program Criteria on an 8-year cycle. The Commentary can be updated as frequently as deemed appropriate by the COAO.

Q16. In what specific ways are the CEPC and its associated Commentary perceived as <u>helpful</u> to programs and the accreditation process?

- The CEPC provide definitive guidance to programs about the needs of the profession, as identified through authoritative sources approved by the ASCE Board, namely, the Body of Knowledge, the ASCE strategic vision, and relevant ASCE policy statements. These sources are developed based on broad input from members of the civil engineering profession.

- The CEPC specify *minimum requirements*, providing programs with the flexibility to go beyond the minimum, in response to the needs of their program constituencies, including the faculty, graduates, and employers.

- Regarding the CEPC requirement for curricular breadth, CE programs have the flexibility to choose which four technical areas to address, based on the needs of their programs' constituencies.

- CEPC provisions often provide programs with justification for defending against institutionally-driven constraints on personnel, budget, and other resources. For example, the "four technical areas" provision provides a strong basis for hiring and maintaining program faculty with expertise in at least four CE specialty areas. This safeguard can be especially helpful for small

programs with limited budgets, allowing departments to make a compelling case for creating or retaining faculty positions to maintain the CEPC-mandated diversity of expertise.

- The ASCE CEPC Commentary provides specific guidance to Program Evaluators and CE faculty, thus reducing vagueness and subjectivity associated with interpretation of the ABET criteria—a long-standing source of concern among CE faculty and Department Heads.

General Questions about ABET Accreditation

Q17. How often are programs evaluated?

- Programs are evaluated once every 6 years, unless required otherwise by a previous accreditation evaluation. The typical calendar in the year of evaluation is as follows:
  - July, Year 1 Self Study report submitted together with transcripts of recent graduates
  - Fall semester On-site review and interviews by ABET Team (Team Chair plus one Program Evaluator per program)
  - After visit Program addresses any shortcomings and provides a "due process" response
  - July, Year 2 Final accreditation action approved by the relevant ABET Commission

Q18. What are ABET shortcomings? Is it possible for a program to "fail" the accreditation review?

- The ABET report to the institution includes any findings of shortcomings, identified as follows in the ABET *Accreditation Policies and Procedures Manual:*
  - Deficiency – A Deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program is not in compliance with the criterion, policy, or procedure.
  - Weakness – A Weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next review.
  - Concern – A Concern indicates that a program currently satisfies a criterion, policy, or procedure; however, the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied.
- Programs are not evaluated on a pass/fail basis. The strength of compliance with general criteria and program criteria, if applicable, is evaluated and determined using the terms given above.

Q19. Might any aspects of ABET accreditation function as disincentives for curricular innovation?

Possibly. Disincentives might include:

- Uncertainty associated with a given Program Evaluator's interpretations of the criteria.
- Uncertainty associated with a given Program Evaluator's recognition of CE technical areas outside the seven "traditional areas".
- Uncertainty associated with meeting faculty qualification requirements in non-traditional CE technical areas.

ASCE has worked to mitigate the adverse impact of these disincentives and encouraged innovation through its CEPC Commentary, which provides guidance on the interpretation of criteria (and, in particular, on the inclusion of non-traditional CE technical areas). The

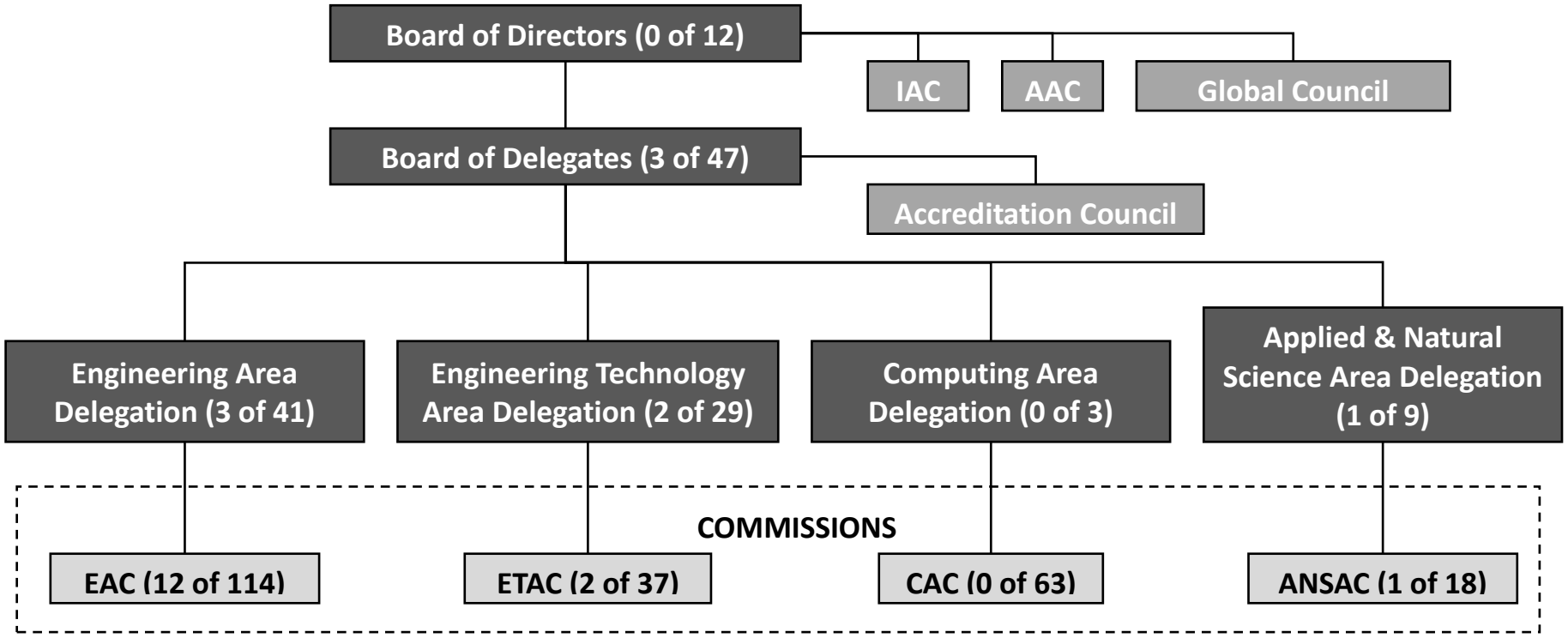
Commentary is intended to reduce uncertainty and inspire confidence by promoting a common understanding of the CEPC among faculty and Program Evaluators.

COAO holds regular webinars to support PEV professional development and to clarify interpretations of CEPC.

ABET procedures provide oversight and review of PEVs' findings, and "due process" procedures allow programs to rebut PEVs' findings and/or correct shortcomings before the final accreditation action is approved.

APPENDIX A: ABET Governance Structure

Numbers in parentheses show the number of ASCE representatives out of total number of members in each entity. For more information about ABET organization and governance, see https://www.abet.org/about-abet/.



APPENDIX B: ABET Criteria (Summary)

Summary of ABET Engineering Accreditation Commission General Criteria, 2019-20 Accreditation Cycle.

Note: this summary is intended to serve as an overview for those readers who may not be familiar with the EAC/ABET Criteria. It is not intended for use for accreditation purposes. The accreditation criteria can be found on www.abet.org. This remains in this document because it represents the move to Sos 1-7.

- **Criterion 1: Students**
  Students receive advising, graduation requirements met, academic policies exist and are applied consistently.
- **Criterion 2: Program Educational Objectives (PEOs)** (what graduates are expected to do within 2-5 years after graduation). PEOs help students identify what is expected, but also provides information to the public and prospective employers about what students are prepared to do.
- **Criterion 3: Student Outcomes**
  The program must have documented student outcomes that support the program educational objectives. Attainment of these outcomes prepares graduates to enter the professional practice of engineering. Student outcomes are outcomes (1) through (7), plus any additional outcomes that may be articulated by the program.
  (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
  (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
  (3) an ability to communicate effectively with a range of audiences
  (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
  (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
  (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
  (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
- **Criterion 4: Continuous improvement**
  Regular, documented processes to improve the program
- **Criterion 5: Curriculum**
  Sufficient units and coverage in math, science, engineering, general education (minimum units specified by ABET); capstone design (senior project) based on realistic constraints.
- **Criterion 6: Faculty**

Sufficient number of faculty, faculty expertise, qualifications, professional development.

- **Criterion 7: Facilities**

  Classrooms, labs, equipment, library are adequate (and safe) to support the educational mission.

- **Criterion 8: Institutional support**

  Leadership, financial support, infrastructure, services (e.g., Admissions, Registrar) are adequate to support the educational mission.

Appendix C: Civil Engineering Program Criteria

(From abet.org, accessed 7 May 2025)

Civil and Similarly Named Engineering Programs

Lead Society: American Society of Civil Engineers

These program criteria apply to engineering programs that include "civil" or similar modifiers in their titles.

1. Curriculum

The curriculum must include:

a. Application of:
   i. mathematics through differential equations, probability and statistics, calculus-based physics, chemistry, and either computer science, data science, or an additional area of basic science
   ii. engineering mechanics, materials science, and numerical methods relevant to civil engineering
   iii. principles of sustainability, risk, resilience, to civil engineering problems
   iv. the engineering design process in at least two civil engineering contexts
   v. an engineering code of ethics to ethical dilemmas

b. Solution of complex engineering problems in at least four specialty areas appropriate to civil engineering

c. Conduct of experiments in at least two civil engineering contexts and reporting of results

d. Explanation of:
   i. concepts and principles in project management and engineering economics
   ii. professional attitudes and responsibilities of a civil engineer, including licensure and safety

2. Faculty

The program must demonstrate that faculty teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience.

Appendix D: Civil Engineering Body of Knowledge Outcomes

Civil Engineering Body of Knowledge, 3rd edition, Outcomes

(from the Civil Engineering Body of Knowledge: Preparing the Future Civil Engineer, 3rd edition, 2019)

Table F-5. The *Civil Engineering Body of Knowledge* Cognitive Domain Typical Pathway to Achievement.

Outcome	Cognitive Domain Level of Achievement					
	Level 1 Remember	Level 2 Comprehend	Level 3 Apply	Level 4 Analyze	Level 5 Synthesize	Level 6 Evaluate
Foundational Outcomes						
Mathematics	UG	UG	UG			
Natural Sciences	UG	UG	UG			
Social Sciences	UG	UG	UG			
Humanities	UG	UG	UG			
Engineering Fundamentals Outcomes						
Materials Science	UG	UG	UG			
Engineering Mechanics	UG	UG	UG			
Experimental Methods and Data Analysis	UG	UG	UG	PG		
Critical Thinking and Problem Solving	UG	UG	UG	ME	ME	
Technical Outcomes						
Project Management	UG	UG	ME			
Engineering Economics	UG	UG	ME			
Risk and Uncertainty	UG	UG	UG	ME		
Breadth in Civil Engineering Areas	UG	UG	UG	ME		
Design	UG	UG	UG	ME	ME	
Depth in a Civil Engineering Area	UG	UG	PG	PG	ME	
Sustainability	UG	UG	UG	ME		

(continued)

Table F-5. (Continued)

Outcome	Cognitive Domain Level of Achievement					
	Level 1 Remember	Level 2 Comprehend	Level 3 Apply	Level 4 Analyze	Level 5 Synthesize	Level 6 Evaluate
Professional Outcomes						
Communication	UG	UG	UG	ME	ME	
Teamwork and Leadership	UG	UG	UG	ME	ME	
Lifelong Learning	UG	UG	UG	ME	ME	
Professional Attitudes	UG	UG	ME	ME		
Professional Responsibilities	UG	UG	ME	ME	ME	
Ethical Responsibilities	UG	UG	ME	ME	ME	

Table F-6. The *Civil Engineering Body of Knowledge* Affective Domain Typical Pathway to Achievement.

Outcome	Affective Domain Level of Achievement				
	Level 1 Receive	Level 2 Respond	Level 3 Value	Level 4 Organize	Level 5 Characterize
Technical Outcome					
Sustainability	UG	UG	ME	SD	
Professional Outcomes					
Communication	UG	UG	ME	SD	
Teamwork and Leadership	UG	UG	ME	SD	
Lifelong Learning	UG	UG	ME	SD	
Professional Attitudes	UG	UG	ME	SD	
Professional Responsibilities	UG	UG	ME	SD	
Ethical Responsibilities	UG	UG	ME	ME	SD

Appendix E: Eight-year cycle developed for reviewing the Civil Engineering Body of Knowledge and the Civil Engineering Program Criteria

Event	CEBOK 2nd Edition	CEBOK 3rd Edition	CEBOK 4th Edition
CEBOK Task Committee organized	Completed	October 2016	October 2024
CEBOK finalized		September 2018	September 2026
CEBOK published		March 2019	March 2027
CE Program Criteria Task Committee organized	October 2012	October 2020	October 2028
Draft CE Program Criteria published	March 2014	March 2022	March 2030
CE Program Criteria approved by ABET EAC (1st reading)	July 2014	July 2022	July 2030
CE Program Criteria approved by ABET Board of Directors/Eng. Area Delegation (1st reading)	October 2014	October 2022	October 2030
Public Review of CE Program Criteria initiated	November 2014	November 2022	November 2030
CE Program Criteria approved by ABET EAC (2nd reading)	July 2015	July 2023	July 2031
CE Program Criteria approved by ABET Board of Directors/Eng. Area Delegation (2nd reading)	October 2015	October 2023	October 2031
First Review Under New CE Program Criteria	September 2016	September 2024	September 2032

APPENDIX F: Selected recent literature and references related to ABET, CEPC, BOK2, and BOK3 (2015 – present)

ABET Accreditation Policies & Procedures Manual: https://www.abet.org/accreditation/accreditation-criteria/

Bielefeldt, A. R., B.E. Barry, K. J. Fridley, L. E. Nolen, and D. B. Hains, "Constituent Input in the Process of Developing the Third Edition of the Civil Engineering Body of Knowledge (CEBOK3)," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Brandes, H., J. Manous, and K. J. Fridley, "Comparison Between the New Bodies of Knowledge for the Civil Engineering Professional and the Civil Engineering Technologist," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Brandes, H., E. L. Flicker, and K. Dooley, "The Role of the Civil Engineering Body of Knowledge in ASCE's Raise the Bar Effort," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Delatte, N., B. E. Barry, A. N. Morse, and C. M. Saviz, "Department Head Perspectives on the Current CEPC and the BOK3," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Dennis, N. D., and D. B. Hains, "Achieving the Civil Engineering Body of Knowledge in the Affective Domain," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Dennis, N. D., and D. B. Hains, "Assessing the Civil Engineering Body of Knowledge in the Affective Domain," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Estes, A. C., and T.A. Lenox, "New Civil Engineering Program Criteria: How the Sausage is Being Made," Proceedings of the 2014 American Society for Engineering Education Annual Conference & Exposition, 2014.

Estes, A. C., T.A. Lenox, and R.O. Anderson, "New Civil Engineering Program Criteria: The Rest of the Story," Proceedings of the 2015 American Society for Engineering Education Annual Conference & Exposition, 2015.

Estes, A. C., P. A. Brady, and P. Laursen, "Adjusting to the New ABET Criteria 3 and 5: It's Really Not Very Hard," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Fridley, K. J., D. B. Hains, L. E. Nolen, B.E. Barry, and B. L. Hartmann, "Is It Time For a Third Edition of the Civil Engineering Body of Knowledge (BOK)?," Proceedings of the 2017 ASEE Annual Conference and Exposition, June 2017.

Fridley, K. J., D. B. Hains, B.E. Barry, K. L. Sanford Bernhardt, and L. E. Nolen, "The Third Edition of the Civil Engineering Body of Knowledge: An Update and Overview," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Fridley, K. J., D. B. Hains, A. N. Morse, and L. E. Nolen, "The CEBOK3 and ABET Accreditation Criteria: A Gap Analysis," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Fridley, K. J., D. B. Hains, and L. E. Nolen, "The 5Ws of the Third Edition of the Civil Engineering Body of Knowledge," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Hains, D. B. and S. J. Ressler, "Teaching The BOK? Challenges For Faculty And Programs," Proceedings of the 2007 ASEE Annual Conference and Exposition, June 2007.

Hains, D. B., "The Civil Engineering Body of Knowledge: Supporting ASCE's Grand Challenge," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Hains, D. B., K. J. Fridley, L. E. Nolen, and B.E. Barry, "Revising the Civil Engineering Body of Knowledge (BOK): The Application of the Cognitive Domain of Bloom's Taxonomy," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Hains, D. B., K. J. Fridley, T.A. Lenox, L. E. Nolen, and J. J. O'Brien, "The Evolution of the Civil Engineering Body of Knowledge: From the First Edition to the Third Edition," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Krishnamurthy, M., D. A. Pezza, K. J. Fridley, and D. B. Hains, "The Practitioners' Point of View of the ASCE Body of Knowledge," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Hamilton, S. R., D. A. Saftner, and C. M. Saviz, "Civil Engineering Program Criteria: A Snapshot of How Programs Meet the Criteria," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Ressler, S.J. and D.R. Lynch, "The Civil Engineering Body of Knowledge and Accreditation Criteria: A Plan for Long-Term Management of Change," Proceedings of the 2011 American Society for Engineering Education Annual Conference & Exposition, 2011.

Ressler, S. J., and T. A. Lenox, "Raising the Bar for Engineering: Why ABET is Necessary but not Sufficient," Proceedings of the 2015 ASEE Annual Conference and Exposition, June 2015.

Ressler, S. J., and T. A. Lenox, "Raising the Bar for Civil Engineering: Implications of the International Engineering Alliance Graduate Attribute Profiles," Proceedings of the 2016 ASEE Annual Conference and Exposition, June 2016.

Ressler, S. J., and T. A. Lenox, "The ASCE Raise the Bar Initiative: A New Paradigm Based on Credentialing in the Medical Profession," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Swenty, B. J., and M. K. Swenty, "The Impact of EAC-ABET Program Criteria on Civil Engineering Curricula," Proceedings of the 2018 ASEE Annual Conference and Exposition, June 2018.

Swenty, B. J., and M. K. Swenty, "Is it Time for a Three-Year Accredited Civil Engineering Degree in the United States? A Critical Review," Proceedings of the 2019 ASEE Annual Conference and Exposition, June 2019.

Swenty, M. K., and B. J. Swenty, "Professional Licensure: The Core of the Civil Engineering Body of Knowledge," Proceedings of the 2017 ASEE Annual Conference and Exposition, June 2017.