Overview of Pathway to ABET Accreditation:
Programs in Computer Science and Electrical Engineering
College of Science, Technology, Engineering, and Mathematics
The Texas A&M University – Texarkana

BRIEF INTRODUCTION
Before the College of STEM submits a formal Request for Evaluation (RFE) for its Computer Science (CS) and Electrical Engineering (EE) Programs, each Program must have in place a solid process for internal assessment. These processes will take several years to develop and, during this preparation phase, each Program must:
- Implement the assessment process for program educational objectives and student outcomes,
- Demonstrate a continuous improvement loop,
- Collect student work examples, and
- Review the most up-to-date Accreditation Criteria, Accreditation Policy and Procedure Manual, and Self-Study Questionnaire(s), which are updated every year.

The process for obtaining ABET accreditation for the CS and EE Programs in the College of STEM will involve three distinctive steps:

I. Request for Readiness Review
II. Dry-Run Assessment Year
III. Official Assessment Year

It is important to note that the timelines for the Request for Readiness Review and the Dry-Run Assessment Year overlap, as detailed below. This is necessary if the College of STEM is to obtain ABET accreditation for each of its relevant programs within a short and realistic time frame.

ABET has four commissions that lead and conducts its accreditation activities: Applied Science Accreditation Commission (ASAC), Computing Accreditation Commission (CAC), Engineering Accreditation Commission (EAC), and Engineering Technology Accreditation Commission (ETAC). Each commission reviews programs related to different sectors of the technical disciplines. For C-STEM, it is important to note that our CS Program may be eligible for accreditation under both the CAC and EAC, while the EE Program will be eligible for accreditation under the EAC.

I. REQUEST FOR READINESS REVIEW
ABET requires a Preliminary Self-Study Report from programs seeking initial accreditation in institutions which currently have no ABET-accredited programs. A review of this preliminary Self-Study Report, which is called the Readiness Review, will help ABET determine whether our institution is ready to submit a formal Request for Evaluation (RFE) for our programs. (The Readiness Review reduces the possibility that both ABET and our institution will expend significant resources for the on-site review before the program is sufficiently prepared.) The Readiness Review requires two types of documents:

1. Request for Readiness Review (RREV), and
The Readiness Review is a qualification process, which screens a given program’s Preliminary Self-Study Report prior to the program entering the formal accreditation review process. *The same attention to detail should be applied to the Readiness Review and the Preliminary Self-Study Report as to the official accreditation process review.*

**Readiness Review Timeline is as follows:**

1. **August 31, 2014 to May 7, 2015** – CS and EE Programs will review the most up-to-date version of the CAC and EAC Self-Study Questionnaire Templates, which are released by ABET every August, and begin to structure the assessment and evaluation protocols for continuous improvement in their Programs. Each Program will use the respective templates to assist them in this structuring as well as assisting them in preparation of a draft of the Preliminary Self-Study Report that will be required in the submission of the Request for Readiness Review. (Note that if the CS Program is to seek dual accreditation under the CAC and EAC, then a Preliminary Self-Study Report is needed for each.)

2. **August 31, 2015** *(one or two years prior to the official on-site review)* – CS and EE Programs will again review the *most up-to-date version* of the CAC and EAC Self-Study Questionnaire Templates (released by ABET every August). Each Program will use the *most up-to-date version* of their respective templates to prepare the final version of the draft of the Preliminary Self-Study Report for Readiness Review.

3. **October 1, 2015** – C-STEM will notify ABET of its intent to seek Readiness Review on or before this date for the CS and EE Programs.

4. **November 1, 2015** – C-STEM will submit the CS and EE Program Preliminary Self-Study Reports to ABET by this date.


6. **January 2016** – ABET releases electronic letters to the CS and EE Programs in C-STEM containing recommendations from the Readiness Review Committee.

7. **January/February 2016** – Based on Readiness Review recommendations, C-STEM will determine if the CS and EE Programs are capable of applying for the formal accreditation process.

8. **February 28, 2016** – C-STEM notifies ABET of its decision to initiate the formal accreditation process by completing and submitting the Request for Evaluation (RFE) requirements.

**II. DRY-RUN ASSESSMENT YEAR**

The CS and EE Programs will conduct a Dry-Run ABET Assessment Year for the 15-16 AY. This will allow for the assessment and evaluation mechanisms developed and established in 14-15 AY to be in full operation. Note that this exercise will overlap with the timeline associated with the Request for Readiness Review and will be conducted in the same manner, with the same attention to detail, as the official assessment year. It will assist each Program in identifying significant shortcomings in our continuous improvement process and allow for changes to be implemented in the official assessment year. The Dry-Run Assessment Year timeline is as follows:

1. **August 24, 2015 to May 4, 2016** – CS and EE Programs conduct assessment and continue to implement and refine the processes developed in the 14-15 AY that identify, collect, and prepare data to evaluate the attainment of ABET Student Outcomes (SO) and Program Educational Objectives (PEO). Attainment will be assessed effectively using relevant direct, indirect, quantitative, and qualitative measures as appropriate to the outcome or objective being measured and appropriate sampling methods, if necessary, will be used as part of the assessment process. Both programs will continue to collect examples of student work, syllabi, textbooks, and sample assignments and work to complete a Dry-Run Self-Study Report.

During the Dry-Run Assessment Year *(and during the official assessment year)*, each Program will:
• Demonstrate its educational practices and strategies, including the mapping of educational strategies (which could include co-curricular activities) to learning outcomes,
• Demonstrate data collection and analysis that is systemic and consistent and focus on assessment related to the performance indicators,
• Demonstrate the evaluation of assessment findings involving one or more processes for interpreting the data and evidence accumulated through assessment processes (here, evaluations will determine the extent to which Student Outcomes (SOs) and Program Educational Objectives (PEOs) are being attained and how evaluations result in decisions and actions regarding program improvement), and
• Demonstrate how results are used for decision making, including how the feedback process is critical to creating and maintaining a systematic quality assurance system and how all elements of the quality assurance process interact with one another.

2. **March 11, 2016** – Identify an ABET Program Evaluator (PEV) for each Program and each ABET commission (i.e., Computer Accreditation Commission (CAC) and Engineering Accreditation Commission (EAC)) to hire as a consultant who will review the Dry-Run Self-Study Report and conduct a mock ABET onsite visit. In addition, an ABET PEV Team Chair consultant may also be hired to coordinate PEV activities, in a similar manner to an actual visit.

3. **May 27, 2016** – Submit Dry-Run Self-Study Reports to ABET PEV Consultants for review and identify a two- to three-day timeframe for PEVs to conduct mock ABET visit on campus.

4. **June/July 2016** – Receive comments back from Dry-Run Self-Study Reports from PEV Consultants approximately one week prior to visit and host two- to three-day Mock ABET Visit conducted by PEV Consultants.

5. **August 2016** – Based on the findings of the Dry-Run Assessment year and in preparation for the 2016-2017 Academic Year, the CS and EE Programs will make the necessary adjustments to their courses and curriculums, to their assessment and evaluation practices, to their Self-Study Reports, etc.

III. **OFFICIAL ASSESSMENT YEAR**
The CS and EE Programs will conduct the exercises required during the official ABET Assessment Year, 16-17 AY. Assessment and evaluation mechanisms established and refined from the findings of the Dry-Run Year in 15-16 AY that identify, collect, and prepare data to evaluate the attainment of ABET Student Outcomes (SO) and Program Educational Objectives (PEO) will be ongoing. As with previous assessment years, attainment will be assessed effectively using relevant direct, indirect, quantitative, and qualitative measures as appropriate to the outcome or objective being measured. The Official ABET Assessment Year timeline is as follows:

**August 22, 2016 to May 4\(^{th}\), 2017** – This is the academic year that is targeted for official ABET Assessment and is dependent on the outcome of the RREv. Both CS and EE Programs will continue with assessment, evaluation, and continuous improvement protocols, including protocol revisions, collecting examples of student work, syllabi, textbooks, and sample assignments, and working to complete their official Self-Study Reports.

**January 31, 2017 (Approximately nine months before the official on-site visit)** – C-STEM will submit a Request for Evaluation (RFE) on behalf of both CS and EE Programs.

**July 1, 2017 (Approximately six months before the official on-site visit)** – C-STEM submits the completed Self-Study Reports to ABET. Afterwards, ABET will invoice the institution for the Program visits, assign a team chair
for the visit, set the visit date, and form the Program Evaluator (PEV) team. Once the PEV team is in place, they will begin reviewing the Self-Study Reports. In addition, ABET will invite the institution’s representatives to meet with the team chair at ABET’s Institutional Representatives Day, usually held in Washington, D.C.

**August/September 2017** – On-site logistical planning begins. A room (i.e., SCIT 102, STEM Conference Room) will be set up for the review team with the display materials and computer access. The visit schedule will be finalized and student and faculty interviews will be arranged.

**October/November 2017** – On-site visit occurs. Typically, the on-site visit will last three days, usually Sunday through Tuesday. It includes a review of materials and interviews with students, faculty, staff, and administrators, and concludes with an exit meeting where the team conveys its findings. Attending the closed exit meeting will be the University President, Provost, Associate Provost/Accreditation Liaison, Dean of the College of STEM, CS and EE Department Heads, and respective ABET Coordinators.

**October/November 2017** *(One week after the official on-site visit)* – C-STEM provide the PEV team with any errors of fact resulting from the exit meeting for both of the Programs.

**December 2017 / February 2018** *(Two to three months after the official on-site visit)* – ABET formally communicates the PEV team’s findings in a Draft Statement to the institution.

**December 2017 / March 2018** *(Three to four months after the official on-site visit)* – C-STEM formally responds to ABET’s Draft Statement to the institution.

**July 2018** - ABET’s Commissions meet to decide accreditation actions.

**August 31, 2018** *(No later than)* – C-STEM will be formally notified of the findings in the receipt of the Final Statement to the Institution.

### IV. OVERVIEW OF ABET TIMELINE

The table below provides a timeline overview by semesters of the ABET accreditation process for both the CS and EE Programs. For specific dates, please refer to the Sections I, II, and III.

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- **READINESS FOR REVIEW**
- **DRY-RUN ASSESSMENT**
- **OFFICIAL ASSESSMENT**