PHILIPPINE TECHNOLOGICAL COUNCIL ACCREDITATION AND CERTIFICATION BOARD FOR ENGINEERING AND TECHNOLOGY ENGINEERING ACCREDITATION COMMISSION



# CERTIFICATION AND ACCREDITATION SYSTEM FOR ENGINEERING EDUCATION (PTC-CASEE)

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# GUIDELINES FOR THE PREPARATION OF A SELF-STUDY REPORT

2014-2015 Review Cycle

# PHILIPPINE TECHNOLOGICAL COUNCIL

# ACCREDITATION AND CERTIFICATION BOARD FOR ENGINEERING AND TECHNOLOGY

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### Introduction

The Self-Study Report (or SSR) provides a quantitative and qualitative assessment and evaluation of the strengths and limitations of the program being submitted for review to the Philippine Technological Council, Accreditation and Certification Board for Engineering and Technology and the Engineering Accreditation Commission (PTC-ACBET-EAC).

The purpose of the SSR is to explain the extent to which the program meets applicable PTC-ACBET-EAC criteria and policies as documented in the PTC Certification and Accreditation System for Engineering Education (PTC-CASEE). The SSR will provide sufficient information for a thorough onsite review of the program. It is necessary that the SSR address all methods of instructional delivery used for the program, all possible paths that students may take to completion of the degree, and all remote offerings available to students in the program.

The PTC-ACBET-EAC accreditation process gives an opportunity for the institution and the engineering program to address possible shortcomings, if any, identified during the on-site visit. After the institution receives a preliminary statement from ACBET, there is a brief period during which the institution can make corrective improvements before ACBET renders a recommendation decision on accreditation. Even when some shortcomings remain, the institution may address these for the next cycle of evaluation.

The primary purpose of accreditation for engineering in the Philippines under PTC-CASEE is to assure a high quality of engineering education that will enable entry-level engineering professionals to be globally competitive. The Philippine Technological Council, for and in behalf of the Philippine jurisdiction, has been admitted as a Provisional Member Washington Accord since June 19, 2013. It is currently pursuing full signatory membership and is expecting to be admitted in due time. The admission of PTC to the Washington Accord is an initial recognition of PTC having achieved substantial degree of equivalency of its accreditation system, PTC-CASEE, with those of the signatories of Washington Accord. Moreover, this demonstrated that the graduates are educated in an engineering education program that is accredited in accordance with the said PTC-CASEE.

### **Requirements and Preparation**

The program name used on the cover of the SSR must be identical to that used in the institutional publications, on the PTC-ACBET-EAC Initial Request for Evaluation (RFE), and on the transcripts of graduates. This will insure that the program is correctly identified in PTC-ACBET-EAC records and that graduates can be correctly identified as graduating from an accredited program.

The Guidelines are intended to assist the institution and the engineering program to demonstrate that the program satisfies all the criteria (see Doc. ACGS-01) and related requirements of the **PTC-CASEE.** Thus it is important that the institution and the program administrators prepare the SSR to completely address all the criteria and conform to all the pertinent and relevant provisions therein. Necessarily, those responsible for the preparation of the SSR must always refer back and defer to the provisions of Doc. ACGS-01 on the accreditation criteria, should there be any conflict between the contents of the SSR Guidelines and the former.

Tables in the *Guidelines* may be modified in format to more clearly present the information for the program. When this is done, it is suggested that a brief explanatory footnote be included about why



the table was modified. Rows may be added to or deleted from tables to better accommodate program information.

The **educational unit** is the administrative unit having academic responsibility for the program(s) being reviewed by PTC-ACBET-EAC. For example, if more than one program is being reviewed, the educational unit is the administrative unit responsible for the collective group of programs being reviewed by PTC-ACBET-EAC.

### Supplemental Materials

The following materials are to be supplied in addition to the Self-Study Report:

- The general institution catalog covering course details and other institutional information applicable at the time of the review.
- Promotional brochures or literature describing program offerings of the institution.
- Official transcripts of recent graduates. The team chair will request a specific number and method of selection of transcripts for each program and will provide a timeframe in which they should be provided to program evaluators. Each transcript is to be accompanied by the program requirements for the graduate and accompanied by worksheets that the program uses to show how the graduate has fulfilled program requirements.

### Submission and Distribution of Self-Study Report

The Self Study Report (SSR) and Supplemental Materials shall be submitted as follows:

- To PTC-ACBET-EAC Headquarters at least sixty (60) calendar days prior to the targeted dates of the review visit:
  - Submit one copy of SSR including all appendices for each program
  - Submit one (1) set of the supplemental materials (minus the transcripts) to:

### Accreditation and Certification Board for Engineering & Technology PHILIPPINE TECHNOLOGICAL COUNCIL

 Postal Address:
 c/o PTC Executive Directorate Office

 Room 405-406 National Engineering Center

 UP Campus, Diliman, Quezon City, 1101

 Philippines

 Email Address :

- To the Team Chair and to the Approved Observer(s) at least sixty (60) calendar days prior to the targeted dates of review visit:
  - Submit one copy of SSR including all appendices for each program
  - o Submit one (1) set of the supplemental materials, and
  - Submit the requested transcripts for each program.
- To each of the Program Evaluators at least sixty (60) calendar days prior to the targeted dates of review visit:



- Submit one copy of SSR including all appendices for each corresponding program
- $\circ$   $\;$  Submit one (1) set of the supplemental materials corresponding to the program, and
- o Submit the requested transcripts for each corresponding program.

The SSR and Supplemental Material shall be submitted on pdf read-only files on CD, DVD, or data stick. Each Self-Study Report Supplement Material must be self-contained in the medium submitted and must not include "hot" links. The submission cannot be a combination of hard copy and electronic file. Email submissions are not permitted.

The team chair will provide instructions and addresses for the institution to provide a copy of the Self-Study Report (SSR) and Supplemental Material *directly* to the team chair and each program evaluator and approved observer, in electronic format or in hard copy format as maybe requested by the individual evaluator and approved observer. If hard copy format is opted for, this must be printed in A4 size bond paper.

When new or updated material becomes available between the submission of the Self-Study Report and the date of the on-site review, the program must provide it to the team members as soon as possible but not later than upon the team's arrival for the on-site review. All such materials should also be sent to PTC Executive Directorate Office with contact addresses shown elsewhere in this SSR Guidelines.

### Confidentiality

All information supplied is for the confidential use of PTC-ACBET-EAC and its authorized agents. It will not be disclosed without authorization of the institution concerned, except for summary data not identifiable to a specific institution, or information contained in documents in the public domain.

#### **SSR** Template

The following pages constitute the template for the SSR.



# PTC-ACBET-EAC Self-Study Report

for the

# <Program Name>

at

# <Higher Educational Institution Name>

# <Location>

<Date>

# CONFIDENTIAL

The information supplied in this Self-Study Report is for the confidential use of PTC-ACBET-EAC and its authorized agents, and will not be disclosed without authorization of the institution concerned, except for summary data not identifiable to a specific institution.

PTC-ACBET-EAC



### **BACKGROUND INFORMATION**

### A. Contact Information

Provide name, mailing address, phone number, fax number, and e-mail address for the primary contact person for the program. The primary contact person shall have the authority from the institution to transact business with PTC-ACBET-EAC on any and all arrangements related to the accreditation review process.

### B. Program History

Include the year the program was implemented and the date of accreditation by a previous accreditation agency in the Philippines, if applicable. Include historical data on annual enrollments and annual graduation for the program.

#### C. Organization

Describe the administrative structure of the program (from the program to the department, college, and upper administration of your institution, as appropriate).

### D. Delivery Modes

Describe the delivery modes used by this program, e.g., days, evenings, weekends, cooperative education, traditional lecture/laboratory, off-campus, distance education, web-based, etc.

#### E. Locations

Provide all locations where the program or a portion of the program is regularly offered (this would also include dual degrees, international partnerships, etc.).

### I. GENERAL CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

### CRITERION 1. PROGRAM EDUCATIONAL OBJECTIVES

A. Vision and Mission Statement

Provide the institutional vision and mission statements.

B. Program Educational Objectives (PEO)

List the program educational objectives, and state where the general public can find these.

C. Consistency of the Program Educational Objectives with the Vision and Mission of the Institution

Describe how the program educational objectives are consistent with the vision and mission of the institution.

D. Program Constituencies

List the program constituencies. Describe how the program educational objectives meet the needs of these constituencies.



E. Process for Formulation, Review and Revision of the Program Educational Objectives

Describe the process for the formulation and periodic review and revision, as necessary, of the program educational objectives including how the program's various constituencies are involved in this process. Include the results of this process and provide a description of any changes that were made to the program educational objectives and the timeline associated with those changes since the last general review.

Survey results and such other information as maybe available which are used in the process of formulation, review and revision of PEO shall be referenced in the appropriate section of the SSR and be made available during the review visits

F. Deployment Process of PEO

Describe how the PEO is deployed among the various program stakeholders and constituencies. Provide demonstration of compliance.

### **CRITERION 2. STUDENT OUTCOMES**

#### A. Student Outcomes

List the student outcomes for the program and indicate where the student outcomes are documented. If the student outcomes are stated differently than those listed in Criterion 2 of the PTC CASEE, provide a mapping of the said listed student outcomes to those of the PTC-ACBET-EAC Student Outcomes.

### B. Relationship of Student Outcomes to Program Educational Objectives

Explain how the student outcomes prepare graduates to attain the program educational objectives.

### C. Process for the Formulation, Review and Revision of Student Outcomes

Describe the process for the formulation, periodic review and revision of student outcomes. Include the results of this process and provide a description of any changes that were made to the student outcomes and the timeline associated with the changes.

### D. Performance Indicators for each of the Student Outcome

Show the performance indicators for each of the student outcome and describe the monitoring, assessment and evaluation process.

(Note: The actual assessment and evaluation of data are under criterion 9.)

### E. Deployment Process of Student Outcomes

Describe how the student outcomes are deployed among all stakeholders, faculty, staff and students. Provide proof of compliance.



### **CRITERION 3. STUDENTS**

Include written policies in place and applied to the following:

### A. Student Admissions

Summarize the requirements and process for accepting new students into the program.

### B. Evaluating Student Performance

Summarize the process for evaluating student performance. Include a discussion on how student outcomes are included in the evaluation of student performance.

### C. Monitoring Student Progress

Summarize the process for monitoring student progress. Include documented information on how the program ensures that students meet prerequisites, and how exceptions are handled. Include a discussion on how monitoring ensures that the schedule of courses for each semester or term for each student takes into account an appropriate progression of learning the student outcomes.

### D. Retention

Describe the retention process, criteria and program for the students.

### E. Transfer Students and Transfer Courses

Summarize the requirements and process for accepting transfer students and transfer credits.

### F. Advising and Career Guidance

Summarize the process for advising and providing career guidance to students, on career paths for the profession associated with the program. Include information on how often students are advised, who provides the advising (program faculty, departmental, college or university advisor).

### G. Work in Lieu of Courses

Summarize the requirements and process for awarding credit for work in lieu of courses, if any. This could include such things as life experience, Advanced Placement, dual enrollment, test out, military experience, etc.

#### H. Graduation Requirements

Summarize the promotion and graduation requirements for the program and the documented process for monitoring and ensuring that each graduate completes all graduation requirements for the program. The documentation should include all documented approved exceptions for each student (e.g. course substitutions, waivers of prerequisites, etc.). State the name of the degree awarded (Bachelor of Science in Electrical Engineering, etc.)

#### I. Transcripts of Recent Graduates

Provide transcripts from some of the most recent graduates to the visiting team along with any needed explanation of how the transcripts are to be interpreted. These transcripts will be



provided to the Team Chair and the Program Evaluator. The Team Chair will specify how the transcripts are to be selected. State how the program and any program options are designated on the transcript.

### J. Academic Exchange

Describe the process of academic exchange, if currently practiced.

Notes:

- Provide supporting report/ data on applicable items.
- Provide list of documented procedures as applicable to above activities.
- Ensure that the students continually achieve desired learning outcomes.

### **CRITERION 4. FACULTY AND SUPPORT STAFF**

### A. Faculty Qualifications



Describe the qualifications of the faculty and how they are adequate to cover all the curricular areas of the program. Include the composition, size, credentials, and faculty experience. Complete ACGS-02 Table 4-1. For each major course in the curriculum, show that there are at least two faculty members who are capable of teaching the subject. Include faculty resumés in Appendix B.

### B. Faculty Workload

Complete ACGS-02 Table 4-2, Faculty Workload Summary, and describe this information in terms of workload expectations or requirements.

Note: The program must not be critically dependent on a single faculty.

### C. Faculty Activities

Discuss the adequacy of the size of the faculty and describe the extent and quality of faculty involvement in interactions with students, monitoring of student progress, student advising and counselling, career guidance, university service activities, professional development, and interactions with industrial and professional practitioners including employers of students. Describe how these activities impact the achievement of specific student outcomes.

### D. Professional Development

Describe the faculty professional development activities, in accordance with the institution's professional development program. Provide a copy of the Professional Development Plan for the previous and current years. Provide sample of results of the completed professional development activity. Describe how the specific training program supports relevant student outcome(s).

### E. Authority and Responsibility of Faculty

Describe the role played by the faculty with respect to their guidance of the program, and in the development and implementation of the processes for the evaluation, assessment, and continuing improvement of the program. Describe the roles of others on campus, e.g., dean or provost, with



respect to these areas. Show samples of Roles/ Responsibilities or equivalent form acknowledged or signed by the faculty.

### F. Evaluation Method To Determine Educational Contributions of Faculty Member

Describe the evaluation method to determine the educational contributions of faculty members. Provide supporting data. Demonstrate how it affects relevant student outcome(s).

### G. Support staff

Describe the adequacy of the support staff. Include a description of the workload and a description of staff development. Provide the personnel development plan for each support group for the previous and current years. Provide sample of results of the completed training. Describe how the specific training program supports the relevant student outcome(s).



### Table 4-1. Faculty Qualifications

Name of Program:

|              |   |      | Academic<br>ntment <sup>2</sup><br>', NTT               | 4         | Years                         | s of Expe | rience           | jistration/<br>on                           | jistration/<br>H<br>H         | Level of Activity<br>H, M or L³ |                                       |
|--------------|---|------|---|-----------|-------------------------------|-----------|------------------|---|-------------------------------|---------------------------------|---------------------------------------|
| Faculty Name | Highest Degree<br>Earned- Field and<br>Year | Rank | Type of Academ<br>Appointment <sup>2</sup><br>T,TT, NTT | FT or PT⁴ | Gov't/ Industrial<br>Practice | Teaching  | This Institution | Professional Registration/<br>Certification | Professional<br>Organizations | Professional<br>Development     | Consulting/Summer<br>Work in Industry |
|              |   |      |   | 5         |                               |           |                  |   |                               |                                 |                                       |
|              |   |      |   |           |                               |           |                  |   |                               |                                 |                                       |
|              |   |      |   |           |                               |           |                  |   |                               |                                 |                                       |
|              |   |      |   |           |                               |           |                  |   |                               |                                 |                                       |

Instructions:

Complete table for each member of the faculty in the program. Add additional rows or use additional sheets if necessary. Updated information is to be provided at the time of the visit.

1. Code: P = Professor ASC = Associate Professor AST = Assistant Professor I = Instructor A = Adjunct O = Other

2. Code: TT = Tenure Track T = Tenured NTT = Non Tenure Track

- 3. The level of activity, high, medium or low, should reflect an average over the year prior to the visit plus the two previous years at the institution
- 4. Part Time (PT) or Full Time (FT) at the institution



## Table 4-2. Faculty Workload Summary

| Name of Program:      |                             |  |          | <u> </u>                   |                    |  |
|-----------------------|-----------------------------|--|----------|----------------------------|--------------------|--|
|                       |                             |  | Progra   | m Activity Distri          |                    |  |
| Faculty Member (name) | PT<br>or<br>FT <sup>1</sup> | Classes Taught (Course<br>No./Credit Hrs.)<br>Term and Year <sup>2</sup> | Teaching | Research or<br>Scholarship | Other <sup>4</sup> | % of Time Devoted<br>to the Program <sup>5</sup> |
|                       |                             |  |          |                            |                    |  |
|                       |                             |  |          |                            |                    |  |
|                       |                             |  |          |                            |                    |  |
|                       |                             |  |          |                            |                    |  |
|                       |                             |  |          |                            |                    |  |
|                       |                             |  |          |                            |                    |  |

Notes:

- 1. FT = Full Time Faculty or PT = Part Time Faculty, at the institution
- 2. For the academic year for which the self-study is being prepared.
- 3. Program activity distribution should be in percent of effort in the program and should total 100%.
- 4. Indicate sabbatical leave, etc., under "Other."
- 5. For FT: Out of the total time employed at the institution; For PT: % employment with the program



# **CRITERION 5. CURRICULUM**

### A. Program Curriculum

- 1. Complete Table 5-1 that describes the plan of study for students in this program including information on course offerings in the form of a recommended schedule by year and term along with average section enrollments for all courses in the program over the two years immediately preceding the visit. State whether you are on quarters or semesters and complete a separate table for each option (if any) in the program.
- 2. Describe how the curriculum aligns with the program educational objectives.
- 3. Describe how the curriculum and its associated prerequisite structure support the attainment of the student outcomes.
- 4. Describe the process of curriculum mapping and change. Provide latest samples of curriculum or course improvement and changes. Describe how the improvements support the student outcomes.
- 5. Attach a flowchart or worksheet that illustrates the prerequisite structure of the program's required courses.
- 6. For each curricular area specifically addressed by either the general criteria or the specific program criteria as shown in Table 5-1, describe how your program meets the specific requirements for this program area.
- 7. Describe the major design experience that prepares students for engineering practice. Describe how this experience is based upon the knowledge and skills acquired in earlier coursework, and incorporate appropriate engineering standards and multiple design constraints.
- 8. Describe the industry-academe linkage, such as on-the-job training to satisfy curricular requirements specifically addressed by either the general or program criteria. Describe the academic component of this experience and how the program evaluates this.
- Describe the adequacy of laboratory courses in the curriculum. Include a discussion of class sizes, number of identical experimental set-ups, and number of students in an experiment group. Describe how it supports the applicable student outcomes.
- 10. Describe the materials (course syllabi, textbooks, sample student work, etc.), which will be available for review during the visit to demonstrate achievement related to this criterion.

### B. Course Syllabi

In Appendix A, include a syllabus for each course used to satisfy the mathematics, science, and discipline-specific requirements required by Criterion 5 or any applicable program criteria. For required courses with multiple sections that do not use a common syllabus, include a syllabus for each of the different sections.



### Table 5-1 Curriculum

Name of Program : \_\_\_\_\_

|   |                     | Indiante \//hether  |  | Curricular Area |                      | Average<br>Section<br>Enrollment<br>for the Last<br>Two Terms<br>the Course<br>was Offered <sup>1</sup> |       |  |
|---|---------------------|---|--|-----------------|----------------------|---|-------|--|
| Course<br>(Department, Number, Title)<br>List all courses in the program by ter<br>starting with first term of first year an<br>ending with the last term of the final ye |                     | Indicate Whether<br>Course is Required,<br>Elective or a Selected<br>Elective by an R, an E<br>or an SE. <sup>2</sup> | Math &<br>Basic<br>Sciences Engineering<br>Topics<br>Check if<br>Contains<br>Significant<br>Design (√) |                 | General<br>Education |   | Other | Last Two Terms<br>the Course<br>was Offered:<br>Year and,<br>Semester, or<br>Quarter |
|   |                     |   |  |                 |                      |   |       |  |
|   |                     |   |  |                 |                      |   |       |  |
|   |                     |   |  |                 |                      |   |       |  |
|   |                     |   |  |                 |                      |   |       |  |
| Add rows as needed to s   | show all courses in | the curriculum.   | $\mathcal{G}$  |                 |                      |   |       |  |
| OVERALL TOTAL CREE<br>THE DEGREE  | DIT HOURS FOR       |   |  |                 |                      |   |       |  |
| Semester Credit Hours of  | or percentage of to | tal   |  |                 |                      |   |       |  |
| Suggested PTC-<br>CABECT-EAC credit   | Semester Credit     | Hours   | 32 Hours   | 48 Hours        |                      |   |       |  |
| hours or percentage   | Percentage          | $\sim$  | 25%  | 37.5 %          |                      |   |       |  |

1. For courses that include multiple elements (lecture, laboratory, recitation, etc.), indicate the average enrollment in each element.

2. Required courses are required of all students in the program, elective courses are optional for students, and selected electives are courses where students must take one or more courses from a specified group. Instructional materials and student work verifying compliance with PTC-CABECT-EAC criteria for the categories indicated above will be required during the campus visit.



### **CRITERION 6. FACILITIES AND LEARNING ENVIRONMENT**

### A. Offices, Classrooms and Laboratories

Summarize each of the program's facilities in terms of their ability to support the attainment of the program educational objectives and student outcomes and to provide an atmosphere conducive to learning.

- 1. Offices (such as administrative, faculty, clerical, and teaching assistants) and any associated equipment that is typically available there.
- 2. Classrooms and associated equipment that is typically available where the program courses are taught.
- 3. Laboratory facilities including those containing computers (describe available hardware and software) and the associated tools and equipment that support instruction. Include those facilities used by students in the program even if they are not dedicated to the program, and state the times they are available to students. Indicate adequacy of the number of identical laboratory set-ups and typical class size. Discuss instruction on safety practices and safety environments (e.g. proper grounding of electrical convenience outlets, safety masks, etc.) Provide Appendix C containing a listing of the major pieces of equipment used by the program in support of instruction.

### B. Computing Resources

Describe IT policy. Describe any computing resources (workstations, servers, storage, networks including software) in addition to those described in the laboratories in Part A, which are used by the students in the program. Include a discussion of the accessibility of university-wide computing resources available to all students via various locations such as student housing, library, student union, off-campus, etc. State the hours the various computing facilities are open to students. Assess the adequacy of these facilities to support the scholarly and professional activities of the students and faculty in the program. Define the student outcomes which are highly affected by computing resources and provide data to demonstrate the intended impact on student outcomes.

#### C. Guidance

Describe how students in the program are provided appropriate guidance regarding the use of the tools, equipment, computing resources, and laboratories including instructions on safety practices.. Provide list of applicable documents.

### D. Maintenance and Upgrading of Facilities

Describe the policies and procedures for maintaining and upgrading the tools, equipment, computing resources, and laboratories used by students and faculty in the program. Provide list of applicable documents. Define the relevant student outcome (SO) and provide the performance data to demonstrate the alignment.



### E. Library Services

Describe and evaluate the capability of the library (or libraries) to serve the program including the adequacy of the library's technical collection relative to the needs of the program and the faculty, the adequacy of the process by which faculty may request the library to order books or subscriptions, the library's systems for locating and obtaining electronic information, and any other library services relevant to the needs of the program. Define relevant student outcomes which are highly affected by library service and provide performance data.

### F. Overall Comments on Facilities

Describe how the program ensures that the facilities, tools, and equipment used in the program are safe for their intended purposes. Provide list of applicable documents. Define performance indicator for safety and provide data.

### **CRITERION 7. LEADERSHIP AND INSTITUTIONAL SUPPORT**

### A. Leadership

Describe the leadership of the program and discuss its adequacy to ensure the quality and continuity of the program and how the leadership is involved in decisions that affect the program. Provide the organizational chart and corresponding functional descriptions and relationships.

### B. Program Budget and Financial Support

- 1. Describe the process used to establish the program's budget and provide evidence of continuity of institutional support for the program. Include the sources of financial support including both permanent (recurring) and temporary (one-time) funds.
- 2. Describe how the institution supports teaching in terms of graders, teaching assistants, teaching workshops, etc.
- 3. To the extent not described above, describe how resources are provided to acquire, maintain and upgrade the infrastructures, facilities and equipment used in the program.
- 4. Assess the adequacy of the resources described in this section with respect to the students in the program being able to attain the student outcomes. Describe how the results of the monitoring, assessment and evaluation of attainment of student outcomes impact on the program budget and financial support.

### C. Staffing

Describe the adequacy of the staff (administrative, instructional, and technical) and institutional services provided to the program. Discuss methods used to retain and train staff. Describe Program Retention for support staff and provide data of implementation.

### D. Faculty Hiring and Retention

- 1. Describe the process for hiring of new faculty.
- 2. Describe strategies used to retain current qualified faculty. Provide report on retention.



### E. Support of Faculty Professional Development

Describe the adequacy of support for faculty professional development and how activities such as sabbaticals, travel, workshops, seminars, etc., are planned and supported. Describe the system or procedures on the generation of Professional Development Plan.

# CRITERION 8. EXTENSION SERVICE, COMMUNITY SERVICE, AND INDUSTRY-ACADEME LINKAGE

### A. Extension Service

Describe non-degree educational services such as short courses on new technologies and new professional topics, to assist engineers from industry in keeping abreast of new developments in the field. Some short courses may provide summaries of findings from the research of faculty. New courses may be developed with collaboration from industry and engineering societies. Provide data to demonstrate compliance. Define the student outcome(s) impacted by the extension service and provide performance monitoring data as maybe necessary.

### B. Community Oriented Programs

Provide evidence that students and student organizations have programs to assist communities not only as an avenue for societal service but also to gain understanding of the impact of engineering solutions to the local context. Possible projects may involve assistance to high school students on potential science/engineering fairs. Community-oriented projects may involve helping design low-cost computing, low-cost access to the Internet, and general utilization of their technological expertise. Dialogs with the communities to determine their needs should be explored first. Provide data to demonstrate compliance to the sub-provision of the Criterion. Define the student outcomes being supported by the programs and projects and include performance monitoring data.

### C. Industry-Academe Linkage

- a. Describe regular active participation from industry in planning and defining program educational objectives, student outcomes and curricula to ensure that these are relevant and up-to date with societal and professional requirements.
- b. Describe faculty/student-industry exposure through internships, industry-visits, collaborative projects under professionals in industry, and industry-based final year projects.
- c. Provide data to demonstrate performance. Define student outcome(s) supported by the activities and include performance monitoring data.

### **CRITERION 9. CONTINUOUS QUALITY IMPROVEMENT**

This section of your SSR should document your processes for regularly assessing and evaluating the extent to which student outcomes and the program educational objectives are being attained.

This section should also document the extent to which the student outcomes and the program educational objectives are being attained. It should describe how the results of these evaluations are being utilized to effect continuous improvement of the program.



Although the program can report its processes as it chooses, the following is presented as a guide to help you organize your SSR. It is also recommended that you report the information concerning your program educational objectives separately from the information concerning your student outcomes.

### A. Student Outcomes

It is recommended that this section include (a table may be used to present this information):

- A listing and description of the assessment processes used to gather the data upon which the evaluation of each student outcome is based. Examples of data collection processes may include, but are not limited to, specific exam questions, student portfolios, internally developed assessment exams, senior project presentations, nationally-normed exams, oral exams, focus groups, industrial advisory committee meetings, or other processes that are relevant and appropriate to the program.
- 2. A listing and description of the evaluation processes for each of the student outcomes.
- 3. The frequency with which these assessment and evaluation processes are carried out.
- 4. The expected satisfactory level of attainment for each of the student outcomes. As much as possible, include report on the performance indicators for each of the student outcome.
- 5. Summaries of the results of the evaluation process and an analysis illustrating the extent to which each of the student outcomes is being attained.
- 6. Continuous improvement actions undertaken and any significant future improvement plans.
- 7. Documentation and maintenance of the results.

### B. Program Educational Objectives

It is recommended that this section include (a table may be used to present this information):

- A listing and description of the assessment processes used to gather the data upon which the evaluation of each program educational objective is based. Examples of data collection processes may include, but are not limited to, employer surveys, graduate surveys, focus groups, industrial advisory committee meetings, or other processes that are relevant and appropriate to the program.
- 2. A listing and description of the evaluation processes used for each of the program educational objectives.
- 3. The frequency with which these assessment and evaluation processes are carried out.
- 4. The expected satisfactory level of attainment for each of the program educational objectives. A report to show level of attainment shall be available made available.



- 5. Summaries of the results of the evaluation processes and an analysis illustrating the extent to which each of the program educational objectives is being attained.
- 6. Continuous improvement actions undertaken and any significant future improvement plans.
- 7. How the results are documented and maintained. Provide samples of results.

### C. Continuous Improvement

Describe how the results of evaluation processes for the program educational objectives and the student outcomes and any other available information have been used as input in the continuous improvement of the program. Provide a list of continuous improvement actions taken and include results of the actions taken. Likewise, indicate any significant future program improvement plans based upon recent evaluations. Provide a brief rationale for each of these planned changes.

### D. Maintenance of Continuous Quality Improvement Program

Discuss how the Continuous Quality Improvement program is maintained including a description of how records are kept and a discussion of resources needed for the maintenance of the program.

### E. Additional Information

Copies of any of the assessment instruments or materials must be available for review at the time of the visit. Other information such as minutes from meetings where the assessment results were evaluated and where recommendations for action were made could also be included.

### II. SPECIFIC PROGRAM CRITERIA

Describe how the program satisfies any applicable specific program criteria. If already covered elsewhere in the self-study report, provide appropriate references



## **APPENDICES**

## Appendix A – Course Syllabi

Use the following format for the course syllabi (typically 2 pages in Times New Roman or similar 12 point font)

- 1. Course number and name
- 2. Credits and contact hours
- 3. Instructor's or course coordinator's name
- 4. Text book, title, author, and year
  - a. other supplemental materials
- 5. Specific course information
  - a. brief description of the content of the course (catalog description)
  - b. prerequisites or co-requisites
  - c. indication of whether a required, elective, or selected elective (as per Table 5-1) course in the program
- 6. Specific Course objectives and outcomes
  - a. specific outcomes of instruction, example: The student will be able to explain the significance of current research about a particular topic.
  - b. explicit indication of which student outcomes listed in Criterion 2 or any other outcomes are addressed by the course. Course/topic outcomes mapped against the student outcomes in Criterion 2 should be made available during the course of the accreditation review.
- 7. List of topics to be covered



# Appendix B – Faculty Vitae

Use the following format for the faculty vitae (2 pages maximum in Times New Roman or equivalent 12 point type)

- 1. Name of Faculty
- 2. Education degree, discipline, institution, year
- 3. Academic experience institution, rank, title (chair, coordinator, etc. if appropriate), when (ex. 1990-1995), full time or part time
- 4. Non-academic experience company or entity, title, brief description of position, when (ex. 1993-1999), full time or part time
- 5. Certifications or professional registrations
- 6. Current membership in professional organizations
- 7. Honors and awards
- 8. Service activities (within and outside of the institution)
- Briefly list the most important publications and presentations from the past five years

   title, co-authors if any, where published and/or presented, date of publication or
   presentation
- 10. Briefly list the most recent professional development activities



## Appendix C – Equipment

List the major pieces of equipment used by the program in support of instruction.



### Appendix D – Institutional Summary

Programs are requested to provide the following information.

### 1. The Institution

- a. Name and address of the institution
- b. Name and title of the chief executive officer of the institution
- c. Name and title of the person submitting the self-study report.
- d. Name the organizations by which the institution is now accredited and the dates of the initial and most recent accreditation evaluations.

### 2. Type of Control

Description of the type of managerial control of the institution, e.g., private-non-profit, private-other, denominational, state, federal, public-other, etc

### 3. Educational Unit

Describe the educational unit in which the program is located including the administrative chain of responsibility from the individual responsible for the program to the chief executive officer of the institution. Include names and titles. An organization chart may be included.

### 4. Academic Support Units

List the names and titles of the individuals responsible for each of the units that teach courses required by the program being evaluated, e.g., mathematics, physics, etc.

### 5. Non-academic Support Units

List the names and titles of the individuals responsible for each of the units that provide non-academic support to the program being evaluated, e.g., library, computing facilities, placement, tutoring, etc.

### 6. Credit Unit

It is assumed that one semester or quarter credit normally represents one class hour or three laboratory hours per week. One academic year normally represents at least 28 weeks of classes, exclusive of final examinations. If other standards are used for this program, the differences should be indicated.

### 7. Tables

Complete the following tables for the program undergoing evaluation.



## Table D-1. Program Enrollment and Degree Data

Total Undergraduates **Degrees Awarded** Gradeuates **Enrollment Year** Total Academic Year Associates Bachelors 1st 2nd 3rd 4th 5th Masters Doctorates FT Current PT Year 1 FT PΤ 2 FΤ PΤ 3 FT PT 4 FT PT

Name of the Program:

Give official term enrollment figures (head count) for the current and preceding four academic years and undergraduate and graduate degrees conferred during each of those years. The "current" year means the academic year preceding the accreditation visit.

FT--full time PT--part time

PTC\_ACBET\_EAC



| Name of the Program:                         |              |       |                  |
|--|--------------|-------|------------------|
| Year <sup>1</sup> : _                        |              | C     |                  |
|  | HEAD (       | COUNT | FTE <sup>2</sup> |
|  | FT           | PT    |                  |
| Administrative <sup>3</sup>                  |              |       |                  |
| Faculty (tenure-track)                       |              |       |                  |
| Other Faculty (excluding student Assistants) |              |       |                  |
| Student Teaching Assistants                  |              |       |                  |
| Student Research Assistants                  |              |       |                  |
| Technicians/Specialists                      | $\mathbf{O}$ |       |                  |
| Office/Clerical Employees                    |              |       |                  |
| Others <sup>4</sup>                          |              |       |                  |

### Table D-2. Personnel

Report data for the program being evaluated.

- <sup>1</sup> Data on this table should be for the fall term immediately preceding the visit. Updated tables for the fall term when the ABET team is visiting are to be prepared and presented to the team when they arrive.
- <sup>2</sup> For student teaching assistants, 1 FTE equals 20 hours per week of work (or service). For undergraduate and graduate students, 1 FTE equals 15 semester credit-hours (or 24 quarter credit-hours) per term of institutional course work, meaning all courses science, humanities and social sciences, etc. For faculty members, 1 FTE equals what your institution defines as a full-time load.
- <sup>3</sup> Persons holding joint administrative/faculty positions or other combined assignments should be allocated to each category according to the fraction of the appointment assigned to that category.
- <sup>4</sup> Specify any other category considered appropriate, or leave blank.



## Signature Attesting to Compliance

By signing below, I attest to the following:

That \_\_\_\_\_\_\_ (Name of the Program Chair and Name of the Program(s)) has conducted an honest assessment of compliance and has provided a complete and accurate disclosure of timely information regarding compliance with PTC-ACBET-EAC Certification and Accreditation System for Engineering Education (CASEE) to include the General Criteria and any applicable Specific Program Criteria, and the PTC-ACBET-EAC accreditation policies and procedures.

## Dean's Name (As indicated on the RFE)

Signature

Date