DATE: **March 23, 2023**
TO: **Viviana Vladutescu, Proposal Author**
          (Electrical and Telecommunications Engineering Technology Department)
          Anne Marie Sowder, College Council Curriculum Committee Chair
FROM: **Curriculum Subcommittee**
          Dionne Bennett (Chair), Elena Filatova, David Sánchez Jiménez
RE: **Final Report for Major Curriculum Modification Proposal**
          21-02 ETET– Modification of Program Educational Objectives
          Department of Electrical and Telecommunications Engineering Technology

Rationale:

The Department of Electrical and Telecommunications Engineering Technology Program Educational Objectives Modification Proposal was written and submitted by Dr. Viviana Vladutescu and is the product of a thoughtful, in-depth, and painstaking analysis and assessment of the department's Program Educational Objectives (PEOs) and a rigorous process of review and debate by the department to achieve agreement on the final PEOs. It is the result of exhaustive labor by Dr. Vladutescu in collaboration with the members of the department to ensure that the PEO's are aligned with the department's assessment outcomes; its current mission, identity, and vision; and the standards set by the Accreditation Board for Engineering and Technology (ABET).

In its last report, ABET expressed concerns about the department's PEOs as they related to aspirational goals for students, the meaningful involvement of students and other constituents in the process of defining the Program Educational Objectives, and the facilities available to students as they complete their major. Addressing these issues is directly related to the ability of the department to remain accredited and in good standing with ABET. In response to these concerns, the department began a committed, dynamic, and democratic process of updating its Program Educational Objectives that included multiple meetings and conversations with department stakeholders, including students, and that resulted in multiple updates and revisions, each of which required multiple discussions within the department, to produce the current document. This document is the result of multiple updated drafts to address interests and concerns that were then brought back before the department multiple times for review and to achieve agreement. As a result of this extensive and in-depth process, the department has generated PEOs that represents its mission and the interests of multiple stakeholders as required by ABET and by its own visionary goals.

Rationale Excerpt from the Proposal:

      Following the ABET (Accreditation Board for Engineering and Technology) evaluation of the ETET programs in Feb 2021, all programs received a Concern (C) based on lack of compliance with ABET Criterion 2 (Program Educational Objectives), which is addressed in this proposal. Please note that the Concern for Criterion 7 is not to be addressed here. The Self Study Report which is prepared for the Accreditation Body (ABET) and submitted prior to the actual visit, includes a summary of the Program and School performance as it pertains to our engineering educational programs.

      As per the definition of terms in page 13 of 37 in Appendix B, a Concern is "a statement that a program currently satisfies a criterion, policy, or procedure, but the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied". Additionally, the PEV (Program Evaluators) state in Appendix B that 'This criterion (Criterion 2) states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensuresthey remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

      Considering the above, we propose to update the Program Educational Objectives to address the required changes.

Strengths:
- The Updated Program Educational Outcomes Address Concerns Raised by the Accreditation Board for Engineering and Technology (ABET) including the consideration of aspirational goals and the inclusion of stakeholders in the process of producing them.
- The Updated PEOs were carefully constructed to operate in alignment with departmental Student Learning Outcomes.
- The Updated PEOs represent a process of dynamic discourse, intellectual exchange, and articulation of shared values within the ETET department and, thus, reflect demanding thought and labor by the proposer and the entire department.
- The Updated PEOs are in alignment with the departmental and City Tech missions.
- The Updated PEOs express a clear a commitment to Diversity Equity and Inclusion.

Weaknesses:
None

Activities and Issues Addressed:
The review within the college has included multiple meetings (in zoom and in person) and e-mail exchanges with the subcommittee chair and members and two meetings (in zoom and in person) with the Provost and Provost's office. This proposal, also, addresses concerns raised by the Provost's office and subcommittee, most of which were in alignment with the ABET concerns. These related to how the outcomes relate to the educational and professional experiences, goals, and aspirations of students; how the outcomes related to methods and processes of implementation and how they are aligned with other departmental activities and assessments; how the outcomes reflect a commitment to Diversity, Equity, and Inclusion that is consistent with the values of the college and university, and which, as noted in a meeting with the Provost's Office, are likely to be examined in all departments in future Middle States reviews.

Additional Notes from the Subcommittee:
Curriculum proposals are always challenging and complex. However, this proposal represented an unusual level of complexity in *both product and process* as it reflected an entire department's thoughtful assessment of and discussion about its internal and specific mission, identity, and vision while it simultaneously reflected its alignment with external and general accreditation standards. The entire department should be commended for the difficult and demanding work that it has done on the proposal and for doing that in a manner that represents the democratic principles and processes upon which academic freedom and faculty governance are based all while meeting the demands of an external college committee and national board.

Given the complexity of the product and process that this proposal represents, it cannot be stated strongly enough how much the subcommittee commends the leadership, dedication, discipline, insight, and perseverance of Dr. Vladutescu who served in a profoundly difficult, delicate, and demanding role of not only writing and rewriting the proposal but in guiding its iterations through multiple and complex discussions with her department and with other entities in the college to achieve its success. She has this done with a clear and consistent focus on ensuring that the ETET department meets the standards of the Assessment Board, meets the needs of the college, and serves ETET students in every way possible both within and beyond their college careers. She has demonstrated through her stellar intellectual and administrative leadership example the very principles described in the ETET Department's Program Educational Outcomes and that ABET asserted were essential requirements for their approval.

Dr. Vladutescu leadership was so essential to the success of the proposal, that the chair of the subcommittee felt it was important to document it here as part of the proposal process. The subcommittee has been proud to work with Dr. Vladutescu and is proud to call her a colleague. We are proud to support this proposal.

NEW YORK CITY COLLEGE OF TECHNOLOGY, CUNY
Department of Electrical and Telecommunications Engineering Technology

Electrical and Telecommunications Engineering Technology Department

Program Educational Objectives MODIFICATION PROPOSAL

Submitted March 20, 2023

Contents

New York City College of Technology, CUNY

I.   CURRICULUM MODIFICATION PROPOSAL FORM

This form is used for all curriculum modification proposals. See the Proposal Classification Chart for information about what types of modifications are major or minor. Completed proposals should be emailed to the Curriculum Committee chair.

Title of Proposal	**Modification of Program Educational Objectives**
Date	**02/16/2023**
Major or Minor	**Major**
Proposer's Name	**Viviana Vladutescu**
Department	**ETET**
Date of Departmental Meeting in which proposal was approved	**February 16, 2023**
Department Chair Name	**Mohammad Razani**
Department Chair Signature and Date	*M. Razani* 03/17/2023
Academic Dean Name	**Gerarda Shields**
Academic Dean Signature and Date	*Gerarda M. Shields*
Brief Description of Proposal (Describe the modifications contained within this proposal in a succinct summary. More detailed content will be provided in the proposal body.	The proposal is indicating the change in Program Educational Objectives as suggested by the ABET evaluation committee. The form includes the changes for all four programs of the ETET department: Electrical Engineering Technology AAS Electrical Engineering Technology BT Telecommunications Engineering Technology AAS Telecommunications Engineering Technology BT

Brief Rationale for Proposal (Provide a concise summary of why this proposed change is important to the department. More detailed content will be provided in the proposal body).	The program modification proposal is necessitated by the fact that the ABET evaluation team found that the current PEO's (Program Educational Objectives) are not complying with the ABET Criterion 2. Appendix B, Program Audit Form (PAF), summarizes the visiting team's assessment of each program being considered for accreditation or extension of accreditation by ABET
Proposal History (Please provide history of this proposal: is this a resubmission? An updated version? This may most easily be expressed as a list).	**This is a new proposal.**

II.   ALL PROPOSAL CHECK LIST

Completed CURRICULUM MODIFICATION FORM including:	
1. Brief description of proposal	X
2. Rationale for proposal	X
3. Date of department meeting approving the modification	X
4. Chair's Signature	X
5. Dean's Signature	X
Evidence of consultation with affected departments List of the programs that use this course as required or elective, and courses that use this as a prerequisite.	N/A
Documentation of Advisory Commission views (if applicable). It is not included, if not needed we should say N/A?	X
Completed Chancellor's Report Form.	X

EXISTING PROGRAM MODIFICATION PROPOSALS

Documentation indicating core curriculum requirements have been met for new programs/options or program changes.	N/A
Detailed rationale for each modification (this includes minor modifications)	X

III.   GENERAL RATIONALE:

Following the ABET (Accreditation Board for Engineering and Technology) evaluation of the ETET programs in Feb 2021, all programs received a Concern (C) based on lack of compliance with ABET Criterion 2 (Program Educational Objectives), which is addressed in this proposal. Please note that the Concern for Criterion 7 is not to be addressed here. The Self Study Report which is prepared for the Accreditation Body (ABET) and submitted prior to the actual visit, includes a summary of the Program and School performance as it pertains to our engineering educational programs.

As per the definition of terms in page 13 of 37 in Appendix B, a Concern is "a statement that a program currently satisfies a criterion, policy, or procedure, but the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied". Additionally, the PEV (Program Evaluators) state in Appendix B that 'This criterion (Criterion 2) states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensuresthey remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

Below is an excerpt of the Program Audit Form (from Appendix B) indicating the needed actions for accreditation of the ETET programs without any Concerns or Deficiencies:
"As defined in the Criteria for Accrediting Engineering Technology Programs, "Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies.

The program educational objectives listed for the program are specific to the beginning of the career and are not indicative of aspirational goals of graduates a few years after graduation. Gainful employment should be an expected result upon graduation, which is an expected outcome. If students are still looking for gainful employment a few years after graduation then an outcome has not been met. Also, while student exit surveys may be a means to help measure outcomes upon graduation, they do not give an indication of what graduates are expected to attain within a few years after graduation. This may lead students to conclude that upon graduation, the expectations of the profession are limited to the skills learned while in the program. Students should have an expectation of aspirational goals that are to be attained after graduation.

The self-study report for the EET program lists students, alumni, IAC, and employers as program constituencies. However, evidence confirmed that not all constituencies were involved in the review of program educational objectives. Further, documentation of the extent to which other constituencies had input in the process was found lacking. Without periodic review and documentation involving all the constituents, the program cannot ensure that the program educational objectives remain consistent with the institutional mission and are meeting the needs of the program's constituencies.The strength of compliance with this criterion is lacking."

Considering the above we propose to update the Program Educational Objectives to address the required changes as indicated in the tables below. These changes were discussed in the departmental and IAC (Industry Advisory Committee) meetings and all additional suggestions were implemented, including the involvement of all constituents. Without these updates, the concerns will change to deficiencies in the next evaluation process and the ETET Programs will lose their accreditations.

Proposed Modifications of the Program Educational Objectives	
Current program educational outcomes forthe EET AAS Program	Proposed program educational objectives for the EET AAS Program
1.This degree will equip students to secure meaningful careers as electrical or electronic technicians.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as electrical or electronic technicians.
2.Embark on careers of personal and professional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance their undergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

Proposed Modifications of the Program Educational Objectives	
Current program educational outcomes forthe EET BT Program	Proposed program educational objectives for the EET BT Program
1.Secure gainful and meaningful careers as electrical engineering technologists.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as electrical or electronic technologists.
2.Embark on careers of personal andprofessional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance their undergraduate degree, through formal educations and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

Proposed Modifications of the Program Educational Objectives	
Current program educational outcomes for the TCET AAS Program	Proposed program educational outcomes for the TCET AAS Program
1.This degree will equip students to secure gainful and meaningful careers as telecommunications technicians.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as telecommunications technicians.
2.Embark on careers of personal andprofessional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance theirundergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

Proposed Modifications of the Program Educational Objectives	
Current program educational outcomes for the TCET BT Program	Proposed program educational outcomes for the TCET BT Program
1.This degree will equip students to secure gainful and meaningful careers as telecommunications engineering technologists.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as telecommunication technologists.
2.Embark on careers of personal andprofessional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance their undergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

IV. ETET DEPARTMENT APPROVAL OF THE PROPOSAL

The ETET Department Major Curriculum proposal was widely discussed with the members of the Department in Spring 2021. The discussions were initiated after the ABET program accreditation review concluded in February, 2021, and the four programs EET AAS, EET BT, TCET AAS, and TCET BT received a weakness for not complying with the ABET program objectives guidelines. The EET Department conducted several meetings in Spring 2021 to discuss the report findings and necessary program educational objective changes. In this process, the ABET coordinators and the other members of the department studied policy documents and updated the PEOs based on these studies. Based on these studies an initial version was approved on March 11, 2021. This meeting was followed by a meeting with the IAC Industry Advisory board and students, who reviewed and made recommendations for improvement of the newly proposed PEOs on March 25, 2021. Finally, the department approved the final version of the PEOs on April 15, 2021, as indicated in the attached minutes.

V.   CHANCELLOR'S REPORT

A.   *Changes in Program Educational Objectives*

The following revisions are proposed for **PEO's of EET AAS Program**
Program: EET AAS
Program Code: 01394
Effective Date: Spring 2023

From	To
1.This degree will equip students to secure meaningful careers as electrical or electronic technicians.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as electrical or electronic technicians.
2.Embark on careers of personal and professional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance their undergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

The following revisions are proposed for **PEO's of EET BT Program**
Program: EET BT
Program Code: 36279
Effective Date: Spring 2023

From	To
1.Secure gainful and meaningful careers aselectrical engineering technologists.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as electrical or electronic technologists.
2.Embark on careers of personal andprofessional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance theirundergraduate degree, through formal educations and/or certification in order toimprove their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

The following revisions are proposed for the **PEO's of TCET AAS Program**

Program: TCET AAS
Program Code: 87489
Effective Date: Spring 2023

From	To
1.This degree will equip students to secure gainful and meaningful careers as telecommunications technicians.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as telecommunications technicians.
2.Embark on careers of personal andprofessional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance theirundergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

The following revisions are proposed for **PEO's of TCET BT Program**

Program: TCET BT
Program Code: 90200
Effective Date: Spring 2023

From	To
1.This degree will equip students to secure gainful and meaningful careers as telecommunications engineering technologists.	1. This degree will equip students with the ability to secure entry level positions, and sustain successful careers, beyond entry level, as telecommunication technologists.
2.Embark on careers of personal and professional growth.	2. This degree will equip students to embark on careers leading to personal and professional growth by achieving increasing levels of responsibility and leadership, and respect for diversity, equity, and inclusion.
3.Pursue life-long learning to enhance their undergraduate degree, through formal education and/or certification in order to improve their careers.	3. This degree will equip students to pursue life-long learning to enhance their degree, through formal education and/or certification in order to improve their careers and benefit society.

Appendix A. Departmental Minutes

NEW YORK CITY
COLLEGE OF TECHNOLOGY
The City University of New York
300 Jay Street • Brooklyn, NY 11201-2983

Department of Electrical and Telecommunications Engineering Technology
TEL (718) 260-5300 - FAX: (718) 254-8643

Minutes of the ETET Departmental Meeting
On Thursday, April 15, 2021

Present: Professors Goykadosh, Hossain, Kalechman, Kouar, Marandi, Marantz,
                Razani, Ummy, Vladutescu, and Wei
Excused: Professor Geng

- The meeting was called to order at 12:30 P.M. through Zoom Meeting.

- The minutes from the previous meeting on March 11, 2021, were approved.

- Chairman reported that from ETET Department, there are 99 graduates for the June 3rd ceremony including 42 from EET-AAS, 42 from EET-BT, 6 from TCET-AAS, and 9 from TCET-BT programs respectively.

- Chairman asked an active participation of the faculty members in the graduation ceremony and also nominate one of these 99 graduating class (the list will be sent to all today) to represent the department in the first part of the graduation ceremony that will be broadcast College-Wide. The selected student should agree withcoming to campus one day during the first half of May to be video recorded for the ceremony.

- Chairman encouraged all to continue to be actively involved in the preparation of the 30-day response to ABET.

- Chairman asked Professor Hossain to take over the rest of the meeting in order to discuss the steps that must be taken for the 30-days response to ABET regarding the weaknesses reported in the PEOs for all four programs and for the TCET's two programs as well as for the facilities' concerns expressed in the report.

- Professor Hossain stated that PEOs' language and their review process was revised at the last meeting. Now we are to address the ABET findings regarding Criterion 7 (Facilities). It is a concern for EET programs (AAS & B.Tech) and a Weakness for the Telecommunications programs (AAS & B.Tech).

- Prof. Hossain mentioned that EET programs (AAS & B.Tech) Criterion 7 Concern (facilities) was related to limited lab space. It can be addressed by providing evidence of lab expansion such as dividing room V-704 into two rooms and arrangement of additional lab space on the Voorhees Hall 3rd floor. With regards to TCET programs (AAS & B.Tech) Criterion 7 Weakness (facilities), findings relate to the claimed frequent crashes of the outdated laboratory hardware and software. It can be addressed by providing the evidence of department's ongoing initiative of maintenance and improvement of laboratory equipment, PCs, software and remote access to laboratories under COVID as well as the provision of laptops and other hardware needed, to any student who needs them.

- Professor Hossain re-emphasized that the ABET coordinators should collect the sufficient PEOs surveys from current students and he reiterated that it is vital to have the PEOs surveys from the programs Alumni too.

  Professor Hossain suggested that, since Professor Marandi has a great rapport with the students, it will be great to have at least alumni affiliation response for all the programs, as the deadline approaches for the ABET 30-day response.

- Professor Marandi made a commitment that he will try to get the PEOs Review Response Forms from the Alumni by an unofficial deadline of the Sunday, April 18th.

- The last version of the PEOs was approved by the Department members.

- The meeting was adjourned at 2:20 P.M.

- Cc: Dean Gerarda Shields

Appendix B. ABET Program Audit Form

ENGINEERING TECHNOLOGY ACCREDITATION
COMMISSION

PROGRAM AUDIT FORM

FOR 2020–2021 VISITS

NEW YORK CITY COLLEGE OF TECHNOLOGY

Visit held February 22–26, 2021

NEW YORK CITY COLLEGE OF TECHNOLOGY

PROGRAM AUDIT FORM

ABET ENGINEERING TECHNOLOGY ACCREDITATION COMMISSION
ACCREDITATION CYCLE CRITERIA: 2020–2021

EXPLANATION OF PROGRAM AUDIT FORM

The attached Program Audit Form (PAF) summarizes the visit team's initial assessment of each program being considered for accreditation or extension of accreditation by ABET.

The PAF has two parts. The first part summarizes the team's identification of shortcomings with respect to criteria and policies. Shortcomings are shown as a Deficiency (D), Weakness (W), or Concern (C). Definitions are on the next page. The second part of the PAF is a detailed description of any identified shortcomings.

The due-process period begins with the departure of the visit team. Due process is a critical part of the accreditation effort and consists of the following steps:

- **Seven- Day Response** Each program has seven days to respond to the Team Chair in case of errors of fact. Only factual errors will be considered in this portion of the review process. Please log on to MyABET and upload the seven-day response to the ABET Accreditation Management System (AMS). Additional material (beyond errors of fact) included with the seven-day response will be considered with the due-process response. If no errors are noted, no seven-day response is required. Please notify your Team Chair and indicate in the AMS if you will NOT be submitting a response.

- **Draft Statement** The Team Chair, working in collaboration with the visit team members, incorporates your seven-day response, if any, into a Draft Statement that is edited and reviewed by two editors, each of whom is a member of the commission's executive committee. Following a final editing step by ABET Headquarters, a letter of notification is sent to your institution. Please log on to MyABET to download the Draft Statement from AMS. We stress that the institution may immediately begin addressing shortcomings and need not wait for receipt of the Draft Statement.

- **Due-Process Response** You have 30 days after the receipt of the Draft Statement to reply to the Team Chair with your response to the team's findings. The response normally will include documentation of actions taken to correct shortcomings identified in the Draft Statement. Copies of your due- process response should be uploaded to AMS by logging on to MyABET. You are not required to submit a due- process response. Please notify your Team Chair and indicate in the AMS if you will NOT be submitting a response.

- **Final Statement** The Team Chair consults with visit team members as necessary and incorporates the due- process response into the Final Statement. The statement is again reviewed by the editors and sent to ABET Headquarters for final processing.

- **Final Action** At its annual meeting in July, the full commission reviews all Final Statements and recommended actions. Following discussion, a vote of the Commissioners is taken for each program at each institution.

- **Notification of Final Action** In August, ABET sends the Final Statement and transmittal letter informing institutions of the official accreditation actions for your programs.

Electrical Engineering Technology

Used Program Criteria *Electrical/Electronics Engineering Technology and Similarly Named Programs*

Visit held February 22–26, 2021
Team Chair: Ben Stuart
Program Evaluator(s): Brian Norton

PROGRAM AUDIT SUMMARY

Definition of Terms

C (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.

W (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 requierd to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.

D (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.

	Previous Review	Current Review
No deficiencies or weaknesses	X	
1. Students		
2. Program Educational Objectives		W
3. Student Outcomes		
4. Continuous Improvement		
5. Curriculum		
6. Faculty		
7. Facilities		C
8. Institutional Support		
Program Criteria		
Accreditation Policy And Procedure Manual		

DETAILED EXPLANATION OF SHORTCOMINGS

Criterion 1. Students

No shortcomings relative to this criterion at this time.

Criterion 2. Program Educational Objectives

This finding is a weakness.

This criterion states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

As defined in the Criteria for Accrediting Engineering Technology Programs, "Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies."

The program educational objectives listed for the program are specific to the beginning of the career and are not indicative of aspirational goals of graduates a few years after graduation. Gainful employment should be an expected result upon graduation, which is an expected outcome. If students are still looking for gainful employment a few years after graduation then an outcome has not been met. Also, while student exit surveys may be a means to help measure outcomes upon graduation, they do not give an indication of what graduates are expected to attain within a few years after graduation. This may lead students to conclude that upon graduation, the expectations of the profession are limited to the skills learned while in the program. Students should have an expectation of aspirational goals that are to be attained after graduation.

The self-study report for the EET program lists students, alumni, IAC, and employers as program constituencies. However, evidence confirmed that not all constituencies were involved in the review of program educational objectives. Further, documentation of the extent to which other constituencies had input in the process was found lacking. Without periodic review and documentation involving all the constituents, the program cannot ensure that the program educational objectives remain consistent with the institutional mission and are meeting the needs of the program's constituencies.

The strength of compliance with this criterion is lacking.

Criterion 3. Student Outcomes

No shortcomings relative to this criterion at this time.

Criterion 4. Continuous Improvement

No shortcomings relative to this criterion at this time.

Criterion 5. Curriculum

No shortcomings relative to this criterion at this time.

Criterion 6. Faculty

No shortcomings relative to this criterion at this time.

Criterion 7. Facilities

This finding is a concern.

This criterion states, "Institutional support and leadership must be adequate to ensure the quality and continuity of the program. Resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. The resources available to the program must be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. The resources available to the program must be sufficient to acquire, maintain, and operate infrastructures, facilities and equipment appropriate for the program, and to provide an environment in which student outcomes can be attained."

Interviews of students indicated that the laboratory and classroom space for students is limited. If students are not able to enroll in the courses needed at the time they are ready due to a lack of classroom or lab space, that delays their graduation and possibly causes an increase their expenses.

There is a potential that future compliance with this criterion could be jeopardized.

Criterion 8. Institutional Support

No shortcomings relative to this criterion at this time.

Program Criteria

No shortcomings relative to this criterion at this time.

Accreditation Policy and Procedure Manual

No shortcomings relative to this criterion at this time.

Electrical Engineering Technology

Used Program Criteria *Electrical/Electronics Engineering Technology and Similarly Named Programs*

Visit held February 22–26, 2021
Team Chair: Ben Stuart
Program Evaluator(s): Brian Norton

PROGRAM AUDIT SUMMARY

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D (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.

	Previous Review	Current Review
No deficiencies or weaknesses	X	
1. Students		
2. Program Educational Objectives		W
3. Student Outcomes		
4. Continuous Improvement		
5. Curriculum		
6. Faculty		
7. Facilities		C
8. Institutional Support		
Program Criteria		
Accreditation Policy And Procedure Manual		

DETAILED EXPLANATION OF SHORTCOMINGS

Criterion 1. Students

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This finding is a weakness.

This criterion states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

As defined in the Criteria for Accrediting Engineering Technology Programs, "Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies."

The program educational objectives listed for the program are specific to the beginning of the career and are not indicative of aspirational goals of graduates a few years after graduation. Gainful employment should be an expected result upon graduation, which is an expected outcome. If students are still looking for gainful employment a few years after graduation then an outcome has not been met. Also, while student exit surveys may be a means to help measure outcomes upon graduation, they do not give an indication of what graduates are expected to attain within a few years after graduation. This may lead students to conclude that upon graduation, the expectations of the profession are limited to the skills learned while in the program. Students should have an expectation of aspirational goals that are to be attained after graduation.

The self-study report for the EET program lists students, alumni, IAC, and employers as program constituencies. However, evidence confirmed that not all constituencies were involved in the review of program educational objectives. Further, documentation of the extent to which other constituencies had input in the process was found lacking. Without periodic review and documentation involving all the constituents, the program cannot ensure that the program educational objectives remain consistent with the institutional mission and are meeting the needs of the program's constituencies.

The strength of compliance with this criterion is lacking.

Criterion 3. Student Outcomes

No shortcomings relative to this criterion at this time.

Criterion 4. Continuous Improvement

No shortcomings relative to this criterion at this time.

Criterion 5. Curriculum

No shortcomings relative to this criterion at this time.

Criterion 6. Faculty

No shortcomings relative to this criterion at this time.

Criterion 7. Facilities

This finding is a concern.

This criterion states, "Institutional support and leadership must be adequate to ensure the quality and continuity of the program. Resources including institutional services, financial support, and staff (both administrative and technical) provided to the program must be adequate to meet program needs. The resources available to the program must be sufficient to attract, retain, and provide for the continued professional development of a qualified faculty. The resources available to the program must be sufficient to acquire, maintain, and operate infrastructures, facilities and equipment appropriate for the program, and to provide an environment in which student outcomes can be attained."

Interviews of students indicated that the laboratory and classroom space for students is limited. If students are not able to enroll in the courses needed at the time they are ready due to a lack of classroom or lab space, that delays their graduation and possibly causes an increase their expenses.

There is a potential that future compliance with this criterion could be jeopardized.

Criterion 8. Institutional Support

No shortcomings relative to this criterion at this time.

Program Criteria

No shortcomings relative to this criterion at this time.

Accreditation Policy and Procedure Manual

No shortcomings relative to this criterion at this time.

Electromechanical Engineering Technology

Used Program Criteria *Electromechanical Engineering Technology and Similarly Named Programs*

Visit held February 22–26, 2021
Team Chair: Ben Stuart
Program Evaluator(s): Wei Zhan

PROGRAM AUDIT SUMMARY

Definition of Terms

> **C** **(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.
>
> **W** **(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 requierd to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.
>
> **D** **(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.

	Previous Review	Current Review
No deficiencies or weaknesses	X	
1. Students		
2. Program Educational Objectives		C
3. Student Outcomes		
4. Continuous Improvement		
5. Curriculum		
6. Faculty		
7. Facilities		C
8. Institutional Support	C	
Program Criteria		
Accreditation Policy And Procedure Manual		

DETAILED EXPLANATION OF SHORTCOMINGS

Criterion 1. Students

No shortcomings relative to this criterion at this time.

Criterion 2. Program Educational Objectives

This finding is a weakness.

This criterion states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

The self- study report for the Electromechanical Engineering Technology program lists EMT students, alumni, faculty, employers, and Industrial Advisory Committee members as program constituencies. However, evidence confirmed that not all constituencies were involved in the review of Program Educational Objectives (PEOs). Further, documentation of the extent to which other constituencies had input in the process was found lacking.

Without periodic review and documentation involving all the constituents, the program cannot ensure that the PEOs remain consistent with the institutional mission and are meeting the needs of the program's constituencies. The strength of compliance with this criterion is lacking.

Criterion 3. Student Outcomes

No shortcomings relative to this criterion at this time.

Criterion 4. Continuous Improvement

No shortcomings relative to this criterion at this time.

Criterion 5. Curriculum

No shortcomings relative to this criterion at this time.

Criterion 6. Faculty

No shortcomings relative to this criterion at this time.

Criterion 7. Facilities

This finding is a concern.

This criterion states, "Classrooms, offices, laboratories, and associated equipment must be adequate to support attainment of the student outcomes and to provide an atmosphere conducive to learning. Modern tools, equipment, computing resources, and laboratories appropriate to the program must be available, accessible, and systematically maintained and upgraded to enable students to attain the student outcomes and to support program needs. Students must be provided appropriate guidance regarding the use of the tools, equipment, computing resources, and laboratories available to the program. The library services and the computing and information infrastructure must be adequate to support the scholarly and professional activities of the students and faculty."

The department and the college are having difficulty finding more space for classrooms and labs. To help alleviate this problem, they are already using evening hours and weekends. Students complained that lectures and labs were out of sync by four weeks or more. If students couldn't finish the lab assignments, they only had 2 hours on Thursday to complete labs. Some faculty members also indicated that they had to use their small offices as laboratory space.

The department chair of CET indicated that the out-of-sync problem between lectures and labs was caused by constraints from room availability. This space limitation is having negative impact on student learning. While student enrollments in the program are lower recently than in the past (171 in Fall 2020 vs 231 in Fall 2019), there is the potential for enrollments to regain their previous numbers. This could cause the impact of the space limitations to be more significant in the future.

There is a potential that future compliance with this criterion could be jeopardized.

Criterion 8. Institutional Support

No shortcomings relative to this criterion at this time.

Program Criteria

No shortcomings relative to this criterion at this time.

Accreditation Policy and Procedure Manual

No shortcomings relative to this criterion at this time.

Telecommunications Engineering Technology

Used Program Criteria *Telecommunications Engineering Technology and Similarly Named Programs*

Visit held February 22–26, 2021
Team Chair: Ben Stuart
Program Evaluator(s): Kenneth Cooper

PROGRAM AUDIT SUMMARY

Definition of Terms

C (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.

W (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 requierd to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.

D (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.

	Previous Review	Current Review
No deficiencies or weaknesses	X	
1. Students		
2. Program Educational Objectives		C
3. Student Outcomes		
4. Continuous Improvement		
5. Curriculum		
6. Faculty		
7. Facilities		C
8. Institutional Support		
Program Criteria		
Accreditation Policy And Procedure Manual		

DETAILED EXPLANATION OF SHORTCOMINGS

Criterion 1. Students

No shortcomings relative to this criterion at this time.

Criterion 2. Program Educational Objectives

This finding is a weakness.

This criterion states, "The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria."

As defined in the Criteria for Accrediting Engineering Technology Programs, "Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies."

The program educational objectives listed for the program are specific to the beginning of the career and are not indicative of aspirational goals of graduates a few years after graduation. Gainful employment should be an expected result upon graduation, which is an expected outcome. If students are still looking for gainful employment a few years after graduation then an outcome has not been met. Also, while student exit surveys may be a means to help measure outcomes upon graduation, they do not give an indication of what graduates are expected to attain within a few years after graduation. This may lead students to conclude that upon graduation, the expectations of the profession are limited to the skills learned while in the program. Students should have an expectation of aspirational goals that are to be attained after graduation.

The self-study report for the TCET program lists students, alumni, employers, IAC, and administration, faculty and staff as program constituencies. However, evidence confirmed that not all constituencies were involved in the review of program educational objectives. Further, documentation of the extent to which other constituencies had input in the process was found lacking. Without periodic review and documentation involving all the constituents, the program cannot ensure that the program educational objectives remain consistent with the institutional mission and are meeting the needs of the program's constituencies.

The strength of compliance with this criterion is lacking.

Criterion 3. Student Outcomes

No shortcomings relative to this criterion at this time.

Criterion 4. Continuous Improvement

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Criterion 5. Curriculum

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Students report that the computing resources available repeatedly crash during homework and project use. The software needed to complete homework and projects is outdated, and students report difficulty in completing labs when trying to use the equipment and software made available by the institution. Some students report using outside resources to complete assignments, but not all students can access resources not made available to them by the institution.

Without updated computing resources appropriate to the program, students may continue to be frustrated by the amount of time required to complete homework and lab assignments, and attainment of student outcomes may suffer. There is a potential that future compliance with this criterion could be jeopardized.

Criterion 8. Institutional Support

No shortcomings relative to this criterion at this time.

Program Criteria

No shortcomings relative to this criterion at this time.

Accreditation Policy and Procedure Manual

No shortcomings relative to this criterion at this time.

Telecommunications Engineering Technology

Used Program Criteria *Telecommunications Engineering Technology and Similarly Named Programs*

Visit held February 22–26, 2021
Team Chair: Ben Stuart
Program Evaluator(s): Kenneth Cooper

PROGRAM AUDIT SUMMARY

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