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Applied Science Accreditation Commission
Computing Accreditation Commission
Engineering Accreditation Commission
Engineering Technology Accreditation Commission

August 07, 2014

Sergio Flores
Rector
ESPOL
Km 30.5 Via Perimetral
Rectorate Main Building
Guayaquil, Guayas EC090112
Ecuador

Dear Engr. Flores :

I am pleased to transmit to you the findings of the Computing Accreditation Commission (CAC) of ABET with respect to the evaluation conducted for Escuela Superior Politecnica Del Litoral during 2013-2014. Each of ABET's Commissions is fully authorized to take the actions described in the accompanying letter under the policies of the ABET Board of Directors.

We are pleased that your institution has elected to participate in this accreditation process. This process, which is conducted by approximately 2,000 ABET volunteers from the professional community, is designed to advance and assure the quality of professional education. We look forward to our continuing shared efforts toward this common goal.

Sincerely,

A handwritten signature in black ink that reads 'Monte L. Phillips'. The signature is written in a cursive, flowing style.

Monte L. Phillips
President

Enclosure: Commission letter and attachments



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August 07, 2014

Cecilia Paredes
Provost
ESPOL
Km 30.5 Via Perimetral
Rectorate Main Building
Campus Prosperina
Guayaquil, Guayas EC090112
Ecuador

Dear Dr. Paredes :

The Computing Accreditation Commission (CAC) of ABET recently held its 2014 Summer Meeting to act on the program evaluations conducted during 2013-2014. Each evaluation was summarized in a report to the Commission and was considered by the full Commission before a vote was taken on the accreditation action. The results of the evaluation for Escuela Superior Politecnica Del Litoral are included in the enclosed Summary of Accreditation Actions. The Final Statement to your institution that discusses the findings on which each action was based is also enclosed.

The policy of ABET is to grant accreditation for a limited number of years, not to exceed six, in all cases. The period of accreditation is not an indication of program quality. Any restriction of the period of accreditation is based upon conditions indicating that compliance with the applicable accreditation criteria must be strengthened. Continuation of accreditation beyond the time specified requires a reevaluation of the program at the request of the institution as noted in the accreditation action. ABET policy prohibits public disclosure of the period for which a program is accredited. For further guidance concerning the public release of accreditation information, please refer to Section II.A. of the 2013-2014 Accreditation Policy and Procedure Manual (available at www.abet.org).

A list of accredited programs is published annually by ABET. Information about ABET accredited programs at your institution will be listed in the forthcoming ABET Accreditation Yearbook and on the ABET web site (www.abet.org).

It is the obligation of the officer responsible for ABET accredited programs at your institution to notify ABET of any significant changes in program title, personnel, curriculum, or other factors which could affect the accreditation status of a program during the period of accreditation stated in Section II.H. of the 2013-2014 Accreditation Policy and Procedure Manual (available at www.abet.org).

ABET requires that each accredited program publicly state the program's educational objectives and student outcomes as well as publicly post annual student enrollment and graduation data as stated in Section II.A.6. of the Accreditation Policy and Procedure Manual (available at www.abet.org).

ABET will examine all newly accredited programs' websites within the next two weeks to ensure compliance.

Please note that appeals are allowed only in the case of Not to Accredite actions. Also, such appeals may be based only on the conditions stated in Section II.L. of the 2013-2014 Accreditation Policy and Procedure Manual (available at www.abet.org).

Sincerely,

A handwritten signature in black ink that reads "David Cordes". The signature is written in a cursive style with a large, stylized initial "D".

David W. Cordes, Chair

Computing Accreditation Commission

Enclosure: Summary of Accreditation Action
Final Statement

cc: Sergio Flores, Rector

Katherine Chiluiza, Computer Science Program Coordinator

Judith L. Solano, Visit Team Chair

ABET

Computing Accreditation Commission

Summary of Accreditation Actions
for the
2013-2014 Accreditation Cycle

**Escuela Superior Politecnica Del Litoral
Guayaquil,**

Computer Science (B Sc in Computer Science)

Accredit to September 30, 2020. A request to ABET by January 31, 2019 will be required to initiate a reaccreditation evaluation visit. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 01, 2019. The reaccreditation evaluation will be a comprehensive general review.

This is a newly accredited program. Please note that this accreditation action extends retroactively from October 01, 2012.



Computing Accreditation Commission

Final Statement

to

ESCUELA SUPERIOR POLITECNICA DEL LITORAL
Guayaquil, Ecuador

2013-2014 Accreditation Cycle

FINAL STATEMENT

This is a confidential statement from the Computing Accreditation Commission to the institution. It is intended for internal use only and is not for release except as allowed by policies of ABET.

I. INTRODUCTION

In response to increasing demands for scientific and technical education on the Coast, Escuela Superior Politécnica del Litoral (ESPOL), was created by an Executive Decree No. 1664 issued by the President of the Republic, Dr. Camilo Ponce Enriquez, on October 29, 1958. On May 25, 1959, in two rooms of the University mansion, 51 students officially started the academic life of ESPOL.

ESPOL is a public, non-profit institution of higher education institution, autonomous in academic, scientific, technical, administrative, financial, and economic areas. The institution is free to govern itself, without restrictions other than those listed in the constitution, laws, and regulations applicable to its activities. Its fundamental purpose is to provide scientific, technological, humanistic, and cultural higher education.

ESPOL has a faculty of approximately 294 organized into ten academic units. The largest unit, with 59 faculty members, is the Faculty of Electrical and Computer Engineering. Approximately 10,736 students are currently enrolled at the institution.

The following program at the institution was reviewed during the 2013-14 cycle for possible accreditation under the CAC/ABET “Criteria for Accrediting Computing Programs” (*Criteria*) dated October 27, 2012:

- BS program in Computer Science was evaluated under the General Criteria and the Computer Science Program Criteria. The BS program in Computer Science has not previously been accredited.

The program listed above was evaluated by the peer review team shown below.

- Program Evaluator: Keith Olson, Utah Valley University
- Program Evaluator: Gurdeep Hura, University of Maryland Eastern Shore
- Team Chair: Judith Solano, University of North Florida
- Editor One: John L. Schnase, NASA Goddard Space Flight Center
- Editor Two: Barbara A. Price, Georgia Southern University

Please note that program accreditation decisions are made solely by the respective Commissions of ABET. Reference to the professional affiliations of the volunteer peer evaluators in no way constitutes or implies endorsement or recommendation of the programs by the listed professional affiliations.

II. REPORT OF FINDINGS

The *Criteria* is composed of the General Criteria and Program Criteria. Each criterion provides the underlying principles that each program must meet. A program must meet both the General Criteria and all applicable Program Criteria to be accredited.

This section contains the findings from the time of the visit. It also includes an evaluation of any information provided by the program during the due process response. CAC considers the following comments to relate directly to its accreditation actions.

A program's accreditation action will be based upon the findings summarized in this statement. Actions will depend on the program's range of compliance or non-compliance with the criteria. This can be determined from the following terminology:

- **Deficiency:** A deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program does not comply with the criteria.
- **Weakness:** A weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.
- **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.
- **Observation:** An observation is a comment or suggestion that does not relate directly to the accreditation action. It is offered to assist the institution in its continuing efforts to improve its programs.

Computer Science Program

The Computer Science program is part of the Faculty of Electrical and Computer Engineering (FIEC). In ESPOL, each academic program has an organizational structure headed by a faculty member appointed by the Dean of the Faculty to serve as a program coordinator for a period of three years, which can be renewed. In the case of the Computer Science program, there are three program coordinators, one each for the Information Systems Orientation, the Multimedia Systems Orientation, and the Technological Systems Orientation of the program. These three coordinators work together with 19 FTE faculty members to provide for a coherent bachelor's degree program in Computer Science for approximately 300 full-time and 90 part-time students. Over the past four years, the program has graduated an average of 70 students a year.

Program Strength

1. The institution has a unique requirement that all students must complete a course entitled "Entrepreneurship and Technological Innovation." Coordinated by the Center for Entrepreneurship, students work together on interdisciplinary teams to develop and promote novel business ideas. They develop leadership skills, the ability to work as part of a team, and the ability to communicate to a variety of audiences. They also benefit from the opportunity to network with national and local business leaders who come to the campus to share their experiences. In a country that is still growing and developing, this course does an exceptional job of preparing ESPOL graduates to make an immediate contribution to the economy of their community and their country.

Findings from the Current Review

Program Concern

1. Criterion 4, Continuous Improvement. The criterion requires the program to regularly use appropriate, documented processes for assessing and evaluating the extent to which student outcomes are attained. The results of these evaluations must be systematically utilized as input for the continuous improvement of the program.

The program's continuous improvement process has identified five areas in which improvements can be made. The program is currently engaged in activities designed to address four of the five areas identified. The fifth area has to do with students not meeting the expected levels of attainment with respect to some student outcomes. The program has concluded that some curricular reform is needed to improve student attainment of these outcomes. However, Ecuador's Higher Education System is about to publish some new regulations which are to take effect in 2013. The program determined it would be best to wait until after the new regulations take effect to initiate a curriculum reform process. Failure to follow through on this curriculum reform could threaten the quality of the program.

Program Observation

1. The program is regularly collecting data on student recognition of the need for and an ability

to engage in continuing professional development. Questions posed in the “Computers in Society” course require students to reflect on the dynamic nature of the profession and the need for professionals to continue to seek out opportunities for professional development. However, in some of the more advanced technical courses in the program the questions used to elicit information on the extent to which students recognize the need to engage in continuing professional development seem better suited to determining the students’ knowledge of various technologies. The continued use of these particular questions, without some modification, will likely cause the program to arrive at erroneous conclusions with respect to the students’ recognition of the need for professional development.

Due Process Response

The institution elected not to submit a Due Process Response for the program.

III. SUMMARY

The following is a summary of this evaluation for the Escuela Superior Politecnica Del Litoral during the 2013-14 cycle:

Computer Science Program

Concern:

- Criterion 4, Continuous Improvement. The program has concluded that some curricular reform is needed to improve student attainment of some outcomes, but plans to delay any reform until after Ecuador's Higher Education System publishes some new regulations that are to take effect in 2013. Failure to follow through on this curriculum reform, as planned, could threaten the quality of the program.