



---

**Consejo Nacional de Acreditación en Informática y Computación, A.C.**  
Organismo acreditador con reconocimiento del COPAES

# Frame of reference for the Accreditation

**of Academic Programs in Computer Science  
HIGHER EDUCATION  
International emphasis and results.**

Last updated: 2017

Version 3.0

## **C O N T E N T S**

**index**

<b>INTRODUCTION</b> .....	<b>3</b>
<b>I. CHARACTERISTICS OF THE ACCREDITATION</b> .....	<b>6</b>
<b>1.1 CONCEPT OF ACCREDITATION</b> .....	<b>6</b>
<b>1.2 BENEFITS OF ACCREDITATION</b> .....	<b>6</b>
<b>II. THE NATIONAL COUNCIL FOR ACCREDITATION IN COMPUTER SCIENCE (CONAIC)</b> .....	<b>7</b>
<b>2.1 BACKGROUND.</b> .....	<b>7</b>
<b>2.2 CONAIC'S REGISTER OF EVALUATORS</b> .....	<b>8</b>
<b>2.3 INTEGRAL INFORMATION SYSTEM FOR ACCREDITATION (SIAC)</b> .....	<b>8</b>
<b>2.4 CONAIC'S ON-LINE INFORMATION SYSTEM OF THE EVALUATION PROCESS FOR THE PURPOSES OF ACCREDITATION</b> .....	<b>9</b>
<b>III. EVALUATION PROCESS FOR THE PURPOSES OF ACCREDITATION</b> .....	<b>9</b>
<b>3.1 APPLICATION FOR ASSESSMENT</b> .....	<b>10</b>
<b>3.2 SELF-EVALUATION</b> .....	<b>12</b>
<b>3.3 EXTERNAL EVALUATION</b> .....	<b>12</b>
<b>3.4 RESOLUTION</b> .....	<b>13</b>
<b>3.5 FOLLOW-UP FOR CONTINUING IMPROVEMENT</b> .....	<b>15</b>
<b>IV. EVALUATION METHODOLOGY</b> .....	<b>15</b>
<b>4.1 NOMENCLATURE</b> .....	<b>15</b>
<b>4.2 CATEGORIES</b> .....	<b>16</b>
<b>4.3 CRITERIA</b> .....	<b>17</b>
<b>V. FOLLOW-UP OF RECOMMENDATIONS</b> .....	<b>41</b>
<b>VI. GLOSSARY</b> .....	<b>41</b>

## Introduction

The quality at all levels of education is a priority to ensure the development of countries. Mexico is no exception.

Accreditation of the educational quality of higher level in Mexico has been playing a very important role as a means to improve this level of education. Proof of this is the Consejo Nacional de Acreditación en Informática y Computación, A. C. (CONAIC) National Council for the Accreditation in Informatics and Computing through formal training. Now, in world characterized by economic globalization, the emergence of the so-called complex societies and the proliferation in our country of education institutions both public and private, as well as educational programs and modalities for colleges and universities. The issue of accreditation by external bodies is increasingly becoming a priority and a need to provide certainty to the society and the state about the quality of higher education for the development of Mexico.

It is important to be clear about what COPAES establishes as what is to be understood by accreditation of an higher education program : *"It is the public recognition given by an accrediting body external to the Higher Education Institution (HEI) and formally recognized by COPAES, in the sense that the program meets the criteria, indicators and standards of quality established by the accreditation body, as to its structure, functioning, supplies, processes and results; taking also into account that the program has a social relevance, that is to say, that students constitute factors of innovation in the development of the country, in the face of the constant global changes"*. In this regard, once again, it is emphasized that the legitimacy of quality accreditation must be awarded by body external to the HEI and to the State.

CONAIC is one of the accrediting organizations in Mexico, which is recognized, from its creation to date, by the Council for the Accreditation of Higher Education, A. C. (COPAES), which in turn is recognized by the Department of Public Education in Mexico (SEP). CONAIC's primary aim is evaluating of educational programs of higher education with accreditation purposes and particularly those related to the area of computer science, computing and information and telecommunications technology.

This document provides CONAIC's updated frame of reference in alignment with the frame of reference of the COPAES in its version 3.0, dated November 2016. This evaluation is result-oriented, based on indicators focusing on inputs and processes, on the students' learning and continuous improvement, as well as to the integration of criteria and indicators for the different educational modalities: Face-to-face or traditional school curriculum, distance or virtual learning, or semi-distance education.

In the 2012 COPAES harmonized its general frame of reference on which CONAIC based its own frame of reference, 2013. Later on, in 2013, CONAIC aligned its frame of reference to the proposal from COPAES frame of reference version 3.0, which was approved in September 2015 by COPAES and subsequently ratified by the Assembly of CONAIC in February 2016 and which has been implemented since then. The present frame of reference constitutes the formalization of the same, aligned with the one published by COPAES as version 3.0 in November 2016.

We highlight the elements that distinguish this updated CONAIC's frame of reference in accordance of the one of COPAES.

1. Basic requirements necessary for the accreditation of programs are established such as:
  - It is a condition of a program to be assessable, to have at least one generation of graduates and from that point that at least one calendar year has elapsed;
  - The educational program must be listed in COPAES' database and assessable, in accordance with the provisions of the Directorate General of Higher Education (DGESU), of the Department of Public Education (SEP);
  - The program must have a registration of Official Validity of Studies (RVOE) in the case of private higher education institutions or the agreement of authorization, incorporation or recognition of validity of studies in the case of public universities; and
  - The program must be of technical level of higher education, Associate professional level, Professional license or bachelor's degree.
2. To establish and institute the procedure of accreditation at all its stages, namely: application, self-evaluation, external evaluation, resolution and follow-up for continuous improvement.
3. To establish methodological descriptive elements, such as the modalities of studies, among others.
4. To Incorporate a glossary of terms to facilitate the understanding and standardization of the common language between the accrediting body and educational modality (traditional, distance, semi-distance)
5. To establish procedures and instances to solve possible conflicts and disagreements concerning the processes and results of the accreditation.
6. To establish manuals, policies and procedures for each of the stages in the accreditation process, which, once the Integral Information System for Accreditation (SIAC) is implemented, will become the methodological guide for the processing of the information in the system; in the meantime, the CONAIC's on-line Information System should be used for the evaluation process for the purposes of accreditation.

7. To present, when required, the Mexican Classification of programs of study by fields of Academic Training 2011 (Higher and upper-middle education), a document drawn up jointly by ANUIES-CONACYT-SEP-STPS-INEGI. (Annex A)
8. To present the Curriculum Models For Informatics and Computers at higher level updated by CONAIC and the National Association of Institutions of Education in Information Technologies, A. C. (ANIEI). (Annex B), which delimits the universe of CONAIC and serves to select the generic profile with which the HEI will be subject to for the evaluation of their programs through CONAIC. This work has been done since 1986 and has undergone several updates, the last one was carried out by the institutions associated with the ANIEI in its 2014 version, each with its core of expert professors in the areas of knowledge that form the basis of the profiles defined and specifically oriented to computer science, computer science or information and communication technology, in jointly with members of CONAIC.

This document presenting the frame of reference for CONAIC's processes of accreditation, updated and harmonized with COPAES, was structured for ease of reference and use in the following sections: I. Characteristics of the accreditation; II. The National Council of Accreditation, which will address aspects such as background, peer evaluators, on-line information system of the evaluation process for the accreditation CONAIC and mention of SIIAC of COPAES; III evaluation process for accreditation purposes, to provide an overview of the same; IV. Evaluation Methodology, where nomenclature used in the process will be reviewed, as well as the categories and criteria that distinguish CONAIC, always in alignment to COPAES's frame of reference.

## I. Characteristics of the accreditation

### 1.1 Concept of Accreditation

There are different meanings of the concept of accreditation, but it is important to rescue the one COPAES adopts and which is oriented to the accreditation of higher education programs.

**Accreditation of a higher education program:** *"It is the public recognition given by an accrediting body external to the Higher Education Institution (HEI) and formally recognized by COPAES, in the sense that the program meets the criteria, indicators and standards of quality established by the accreditation body, as to its structure, functioning, supplies, processes and results; taking also into account that the program has a social relevance, that is to say, that students constitute factors of innovation in the development of the country, in the face of the constant global changes".*

### 1.2 Benefits of Accreditation

As indicated by COPAES in its general frame of reference, the accreditation of academic programs constitutes a guarantee of quality, which allows to inform society about quality programs and the institutions offering them, as well as to guide the decisions of the federal and state governments, of authorities in the education sector, educational institutions, employers, parents and students, among others. This is the main benefit of accreditation for this sector of society.

It allows the government **and educational authorities** to identify institutions and programs that are the best choice for economic support, taking into consideration the quality of the program, motivating them to maintain and improve their standards of quality for the benefit of the development of the country.

Accreditation benefits education institutions with the improvement of academic programs as they attend to the recommendations of the accrediting bodies; it grants public recognition as prestigious institutions; it provides access to institutional support programs that contribute to the integral improvement of their human and equipment resources and infrastructure, among other things. However, the most important improvement is that the institution organizes itself to meet its strategic goals, that the students learn and acquire the capacity of response before emerging social needs, which in turn, benefits the HEI with social recognition at national and international level.

As to the **employers**, accreditation allows them to participate and have information regarding the quality of the programs to maintain relationships enabling appropriate engagement - continuing education and joint projects links - and to receive in their work spaces expert professionals, harmonizing the needs of the software industry and the different sectors where graduate of the area of computing (evaluated by CONAIC) are required and positioned, ensuring the development and development of business and research in the areas they served and even support the rest of the areas of knowledge for the development of the country.

For parents, a program that becomes accredited guarantees that it meets the standards of quality that will influence positively on the professional development of their children, being assured their child will have a greater chance of being used and to ensure their future.

As for the students, accreditation gives them more certainty that what they are learning is relevant and up to date. Also it provide an opportunity to compete for scholarships, mobility to other higher education institutions, both domestic and foreign, as well as opportunities to continue on with postgraduate studies. In some cases the graduating from an accredited program allows for transfer of credits and titles with other countries. Thus having the possibility to cross borders to get a job and even continuing their studies to ensure better preparation for their future, which in turn will allow them to cooperate in the development of our country

## **II. The National Council for Accreditation in Computer Science (CONAIC)**

### ***2.1 Background.***

CONAIC is the accrediting body of specialized academic programs in the area of computing, informatics and information and communication technology, names that are synonyms or complement our area competency as a body.

It is important to consider some historical data of the emergence of CONAIC, so we have that in the framework of the National Development Plan 1995-2000, the Free Trade Agreement and other international agreements with agencies such as UNESCO, UNICEF, OECD and the World Bank, among others, the education sector saw the need to develop mechanisms to improve the quality of the higher education programs. From there, various groups associated with areas related to Informatics and Computing started efforts and activities aimed to have agencies which could carry out the accreditation.

After the VI National Meeting of Directors of Schools and Faculties of Informatics and Computing in Guadalajara in June 1997, convened by the ANIEI and with the support of the National Institute of Statistics, Geography and Informatics (INEGI) was formed the commission to create the National Council For Accreditation in Computer Science (CONAIC), actively working with the group that was formed at this meeting, which was attended by representatives of programs of this kind from all over the Mexican Republic. It is worth mentioning that this group is formed in the first instance by those who accept the invitation of these institutions to work selflessly and strongly together for the formation of the accreditation commission for studies in the areas of computing and informatics and define its mode of operation.

Then in Mazatlan, within the framework of the Meeting of Directors of Schools and Faculties of Informatics and Computing in 1997, work tables were organized, to write out the Statutes and the new criteria to be taken into account. Thus constituting the whole frame of reference, statutes, guidelines and evaluation instruments subsequently approved in June 1998, at the General Assembly of partners of ANIEI, within the framework of the VII National Meeting of Directors of Schools and Faculties of Informatics and Computing, in Ciudad del Carmen, Campeche, organized by the ANIEI and being hosted by Universidad Autonoma de Campeche, to finally be legally before a notary public on 8 September.1998 in the city of Monterrey, Nuevo León by the representatives of the HEI associated and who participated as coordinators of the project at the time: ANIEI, Instituto Tecnológico y de Estudios Superiores de Monterrey, Universidad Autónoma de Nuevo León, Universidad Veracruzana, Universidad Guadalajara LAMAR and the National Institute of Statistics, Geography and Informatics (INEGI).

From then the implementation of these instruments was initiated, being the UPIICSA with the program of bachelor's degree in Computer Science, the first institution accredited a program in the area of competency of the CONAIC.

It should be noted that the frame of reference of CONAIC has undergone several updates. Since 2000 when COPAES was created, CONAIC has been recognized by this, but it was in 2012 when work for the harmonization and standardization of the frame of reference of COPAES was done, where all the accreditation bodies recognized by COPAES participate to constitute this general framework which is subsequently used by accreditation bodies to align themselves and generating for CONAIC, the one frame of reference approved by the COPAES and the Assembly of partners of CONAIC in 2013, which was implemented then and in use until 2015. It is in February 2016 when the new frame of reference and evaluation instruments is approved in alignment with the new COPAES' general frame of reference version 3.0

## ***2.2 CONAIC's Register of evaluators***

The Register of evaluators is the only peer evaluators of CONAIC that has a list of national and international peer evaluators and these, in turn, are listed on the COPAES' Register of evaluators, to form a single register of evaluators endorsed by COPAES, which assign the technical commissions that evaluate programs according to the area of specialty, in the case of CONAIC, its area of knowledge is computer science, information technology or information and communication technologies. The requirement to be listed on the Register of Evaluators can be found in the statutes of CONAIC.

## ***2.3 Integral Information System for Accreditation (SIAC)***

The SIAC is a national network of information where one can look in the internet cloud and in real time, and check on the processes of accreditation, higher education academic programs, COPAES' Register of Evaluators, where one can find evaluators of CONAIC recognized by COPAES, the follow-up to recommendations of the accreditation bodies and the statistical reports related to the accreditation of higher education programs.

The policy document for the SIAC is the Manual of Policies and Procedures of the Stages of the Accreditation Process of COPAES. The SIAC is not yet in operation. CONAIC's Information System, which is described in section 2.4. Will be used in the meantime.

#### ***2.4 CONAIC's On-line Information System of the Evaluation Process for the Purposes of Accreditation.***

CONAIC'S On-Line Information System of the Evaluation Process for the purposes of Accreditation, is a system that is accessed through CONAIC's portal and allows the HEI to carry out the assessment process for those programs in the universe of CONAIC, from the application, payment of the evaluation, self-evaluation with all the evidences, evaluation of the technical commission (peer evaluators), endorsed by the Commission for Accreditation and Continuous Improvement, thus avoiding use paper, since everything goes to the on line system database, historical record being entered in order to handle future statistics or for reference of the HEI, CONAIC OR COPAES.

### **III. Evaluation Process for the Purposes of Accreditation**

The general stages of the accreditation process are the following: Application, self-evaluation, external evaluation, resolution and follow-up for continuous improvement.



As part of the policies at COPAES, it is important to note that once the Integral System for the Accreditation (SIIAC) is implemented, all accreditation process will be carried out through this system, in accordance with the COPAES' Manual of Policies and Procedures of the stages of the Accreditation Process. Therefore, the possibility that this process suffers some variations as to criteria enter data, to assure the confidentiality of the information and other related aspects, ensuring the confidentiality of information, in view of the impending digitization. This, would not in any way demerit the rules set out in this frame of reference.

While the COPAES's system (SIIAC) is launched for CONAIC has its own on line system for carrying out the process and which is hosted at the portal of CONAIC with URL: [www.conaic.net](http://www.conaic.net). See manual of use of the same.

### **3.1 Application for Assessment**

The evaluation process for the purpose of accreditation is a service provided by CONAIC to an HEI (Higher Education Institution), in order to verify whether the educational programs of the area of competence of CONAIC, complies with the minimum standards and indicators of quality.

Accreditation in Mexico is voluntary which means that the HEI can decide to undergo the process and choose the AB, which corresponds to the discipline of the academic program.

The ABs can share their work with other universes of work with other ABs, the result being considered valid for accreditation purposes regardless of the accreditation body doing the evaluation.

In this sense it is important to note that there is a possibility that the academic program can be evaluated by two or more ABs in the case of multidisciplinary programs, or in the case even from a distance or Mixed Learning Program, where CONAIC may accompany other AB, regardless of the area of competence, for the case of indicators relating to the technological platform of learning, actors in the learning and learning materials and resources.

The head of the institution of higher education should apply for accreditation of the academic program to the AB, for which the Mexican 2011 Classification of Programs of Studies by fields of academic training can be consulted, as well as the curriculum models of Higher Education Science Institutions on Informatics and Computing, published by Pearson.

For a program to be recipient of an accreditation on the part of an organization recognized by COPAES, it must fulfill the following requirements:

- a) The program must have a registration of Official Validity of Studies (RVOE) in the case of private higher education institutions or the Agreement of Authorization, incorporation or recognition of validity of studies in the case of public universities; and
- b) The program must be of technical level of higher education, associate professional level, professional license or bachelor's degree.
- c) The program must have at least one generation of graduates with more than one calendar year.
- d) The curriculum must have previously been sent by the HEI to the AB and COPAES.
- e) The subsystem or type of institution of higher education of the program must be pointed out.
- f) Numbers of students in the program.
- g) Modality of studies in which the academic program is imparted.

Once the application is accepted, the HEI and the AB will be required to sign a contract for the provision of services which specifies the terms and conditions (cost, time of duration - a maximum of one year, as approved by the General Assembly of partners CONAIC), evaluation process, grievance procedure for programs not awarded with the accreditation, as well as the acceptance of the policies non-disclosure).

### **3.2 Self-evaluation**

Self-evaluation requires a high degree of participation of the academic community of the program.

For conducting the self-evaluation, CONAIC sends the evaluation instrument for the purposes of accreditation in force, so that the HEI can have it at its disposal and attach the evidence required, taking special care that all information is provided, in the case of CONAIC, the HEI must do this on the on-line system.

CONAIC reviews in detail the instrument of self-evaluation and once it is filled out by the HEI, CONAIC records the date of conclusion on the of the instrument on its on line system to proceed to the next phase.

### **3.3 External evaluation**

Based on the self-evaluation report of the HEI, the accreditation body performs the external evaluation of the academic program.

CONAIC will train the peer evaluators in the corresponding discipline and the they will be registered on CONAIC's and COPAES' Register of Evaluators; in turn the COPAES may provide further training and grant the evaluators a certificate as such.

For this purpose, an External Evaluation Commission (Technical Commission) with selected peer evaluators from CONAIC's Register of Evaluators. The AB sends out an invitation to these evaluators and once they accept the invitation, a coordinator is appointed. If COPAES deems it necessary, it will appoint a pair of technical evaluators to accompany the External Evaluation Commission during this stage.

The peer evaluators review in detail the evaluation instrument. In case of missing data, this should be advised to the HEI, establishing deadlines for the delivery of the missing data prior to the visit on the part of the External Evaluation Commission.

The External Evaluation Commission must visit the HEI in order to seek additional information if necessary to assess the infrastructure and equipment, as well as to conduct interviews with the parties involved in various processes of the academic program and corroborate entries in the self-assessment tool.

For the *in situ visit*, CONAIC and the institution of higher education define the dates and logistics (itineraries, transportation, lodging and meals of peer evaluators).

The HEI must integrate a work team, which will respond to the External Evaluation Commission on the dates agreed for the visit, prepare the information requested, and provide the facilities for the required interviews.

On the set dates, the External Evaluation Commission visits the HEI. The coordinator assigns tasks to all the peer evaluators and conducts interviews with the people required, they take a tour of the facility, review the documentary evidence, using the official evaluation instrument authorized by the COPAES; and, based on the analysis of the documents and the in situ visit, relevant recommendations and comments are made for the continuous improvement of academic program evaluated.

After the visit, the peer evaluators prepare the External Evaluation Report and send it over to CONAIC.

### **3.4 Resolution**

When CONAIC receives the External Evaluation Report of the visit, the Accreditation Commission analyzes the report thoroughly and once the process is completed, it issues a resolution. The result of the resolution can be "Program Accredited" or "Program not accredited". The resolution is notified to the HEI.

In the event that the program has been accredited, CONAIC points out the recommendations made and the period of time within which the HEI must implement remedies (1 to 5 years). Then, the HEI receives the Certificate of Accreditation which has a duration of five years.

It is worth mentioning that it is not valid to grant a conditioned accreditation or for a period of less than five years.

It should be noted that the HEI has the right to object the result of the resolution, with notification set to CONAIC in the first instance for the presentation of the complaint. In this case, the AB analyzes the information again in order to determine whether the resolution remains as formulated or if it necessary to produce a new resolution. The result is notified to the HEI.

In the event that the HEI, having submitted grievance, requests the intervention of COPAES, to continue to disagree with the resolution of the AB; COPAES, in accordance with the documentation and reports, The HEI shall request for a new process of evaluation for the purposes of accreditation, the COPAES having the right to assign one or two observers for the different stages of the process. Once the final resolution has been given, this will be not open to appeal. In this case, it should be noted that the COPAES may issue recommendations to both the AB and the HEI.

At the end of the process of accreditation, CONAIC OR COPAES will send to the HEI a survey related to the accreditation process.

On the other hand, CONAIC shall send COPAES the following documents every month:

1. The report of accredited programs with details relating to the HEI: institution; campus; school or faculty; state and municipality; regime of the institution

(public or private); name of the program; modality; number of students registered; if it is accreditation or re-accreditation; the period of validity of the accreditation; and the key provided by COPAES.

2. The certificates of the accreditation of each program listed on the report, through electronic media, in PDF format.
3. A report on the recommendations: Listing by program, terms for compliance, progress and follow-up reports.
4. A listing of academic programs in the process of accreditation indicating the stage they are at (application, self-evaluation, external evaluation and resolution).
5. A report of the programs not awarded with accreditation, by attaching a copy of the resolution in PDF format.
6. Details of the accredited programs to foreign institutions of higher education for informational purposes only.

This documentation will enable COPAES to develop the official monthly report of programs in accreditation process, programs accredited and programs not accredited, which will be published on COPAES' internet website: [www.copaes.org.mx](http://www.copaes.org.mx) and that of CONAIC's; the official report is sent to the DGESU (Head office of Higher Education) for publication.

The academic programs listed on the internet with the following classification of status:

1. In process: Academic programs in one of the different stages of the process of accreditation (application, self-evaluation, external evaluation and resolution).
2. Deletion: This means that the academic program is in liquidation or extinct.
3. Expired: Academic programs with more than six months with expired accreditation.
4. Extension: Those academic programs that are within the period of six months following the expiry of the accreditation, to complete the process of re-accreditation.
5. Accredited: Academic programs with the status of accredited.
6. Not Accredited: Are academic programs that were awarded with the accreditation.

### **3.5 Follow-up for continuing improvement**

The recommendations made by the CONAIC constitute actions to be undertaken by the HEI with the aim of improving the quality of the academic program accredited and must therefore be integrated into an improvement plan that is developed together with CONAIC, establishing stages for the compliance of the same.

The HEI implements the improvement plan and notifies the AB advances attending to the recommendations; the AB shall verify compliance with the same, gathering evidence and preparing periodic reports. For this purpose, visits to the HEI can be programmed or a verification can be done through electronic means; that, prior to the evaluation process for the purpose of re-accreditation

## **IV. Evaluation Methodology**

This section describes the methodology used by CONAIC, the elements which it considers, concepts and criteria that integrate the categories of the general frame of reference for the COPAES' processes of accreditation of academic programs of higher education version 3.0.

To carry out the evaluation processes for the purpose of accreditation, it is necessary to make an analysis of a number of aspects relating to academic programs. Thus, it is necessary to have a structuring axis to establish the technical-methodological guidelines for this purpose.

The structuring axis is made up of categories of analysis, criteria, indicators and standards.

### **4.1 Nomenclature**

**Categories** are those allowing for grouping the elements with common features, which will be evaluated by CONAIC.

The **Criteria** are classified as specific criteria and cross criteria. The specific criteria are defined a priori, on which value judgments will be issued. They describe the different elements that make up a category of analysis.

The cross criteria are the points of view from which the evaluation will be made:

- Relevance
- Sufficiency
- Suitability
- Effectiveness
- Efficiency
- Equity

This type of criteria can be evaluated with one or several specific associated criteria

The **Indicators** are the statements describing the quantitative and/or qualitative indicators that are analyzed in the criteria through the quality of specific aspects of the academic program are reviewed. In this sense, indicators can be quantitative (numerically measurable) and qualitative. It is important to note that an indicator does not always have to be a numeric data, although it is preferable that it is.

The **Standards** are the desirable elements of quantitative benchmarks for each indicator, previously established by CONAIC and that will serve to be compared to the results obtained on evaluating the academic program

## 4.2 Categories

Categories are the items to be evaluated by the accreditation bodies with a systemic approach that make reference to the agents or players, processes and results of an academic program, which allow for the development of substantive activities: teaching, research and outreach; and the adjective activities (support and administrative management) in the education sector. These categories are part of a set of criteria, indicators and standards subject to analysis to give a resolution of accreditation

In this way 10 categories have been established based on COPAES' frame of reference:

1. Academic Staff
2. Students
3. Curriculum
4. Evaluation of Learning
5. Integral education
6. Support Services for Learning
7. Engagement – Outreach
8. Research
9. Infrastructure and Equipment
10. Administrative Management and Financing

It is important to note that the evaluation instruments for the purpose of accreditation must have two technical sheets relating to the general details of the institution, faculty, school, department or division and the academic program, information that will allow the peer evaluators an integral understanding of the philosophy, strategic objectives, number of students registered, results, the teaching staff and the organizational structure of the school to achieve their purposes.

The teaching staff to be included in the report must be constituted by professors who teach at least one subject in the curriculum, during the last school period.

The number of students registered and the results (by generational cohort) must correspond to the last three school periods.

### **4.3 Criteria**

This section explains the aspects evaluated with the basic 49 criteria plus the aspects corresponding to the discipline evaluated by CONAIC and that make up the 10 categories, which must be disaggregated indicators that will be supported with evidence. Below are the specific criteria.

#### CATEGORIES

##### **1. Academic Staff**

Refers to the conditions and characteristics of the human resource dedicated to support the tasks related to the teaching-learning process of the program.

##### **Criteria:**

###### *1.1. Recruitment*

This criterion determines if the institution has an open recruitment process, by means of public calls or equivalent instruments to be transparent and to attract a larger number of candidates; and if the selection of teachers takes into consideration the teaching experience and work experience according to the subject matter to be taught.

###### *1.2. Screening*

This criterion evaluates the implementations of exams, model classes or equivalent for the selection of the teaching staff.

###### *1.3. Hiring*

This criteria allows to evaluate if in resolution for the hiring of professors there is participation of the collegiality.

###### *1.4. Development*

In this criterion, the indicators should make it possible to evaluate the different mechanisms for the formation and updating of the teaching staff in the didactic-pedagogical scope, in the disciplinary field and for the use of computational tools in the educational process.

The ideal situation is that the courses and other mechanisms, they are framed in ongoing programs that have as background the detection of needs for the continuous improvement of the teaching and research work, as well as to the relevance of the

academic program with regard to social demands and scientific and technological progress.

Finally, a very important aspect is existence of mechanisms and instruments to know the impact of the training and update in the improvement of the teaching practice and student learning.

#### *1.5. Categorization and level of studies*

This criterion evaluates if there is balance between the number of full-time faculty and courses in accordance with the requirements of the curriculum; and if their academic preparation and/or work is oriented to the discipline they are teaching.

It requires the development of a graph showing the number of full-time professors, three-quarters-time professors and half-time professors, as well as subjects taught; and the details as to the education background of professors and of studies with the faculty and their percentage share in the total number of professors.

To substantiate the table is necessary to follow the institutional statutes where the different categories of professors can be observed and their rights and obligations.

#### *1.6. Distribution of the academic load for full-time teachers (FTP)*

Under this criterion the time professors dedicate to the different substantive activities: teaching, research and engagement-outreach, research and linking-extension. In this sense, it is necessary to consider the total number of hours of the of , subtract those hours dedicated to teaching, and from the resulting figure calculate the hours spent by professors on research and engagement-outreach; and then calculate the percentage of these two last activities, in relation to the total of hours mentioned in the first place.

#### *1.7. Evaluation*

The indicators relating to this criterion allow to evaluate whether there are regulations, programs, and procedures for granting incentives and recognition for the performance of professors in a transparent way.

For this purpose, the following is taken into account:

- Regulations and procedures for granting incentives, and
- Instruments and mechanisms that allow for the participation of students and of the collegiality to evaluate the quality of the performance of professors in the classroom.

- Also, it is important to know if the regulations, procedures and instruments to grant incentives include provisions that take into account the following aspects:
  - Mechanisms to evaluate the various activities done by professors teachers and academics: development of teaching materials, anthologies, articles and books; provision of tutoring and counseling; participation in research projects and thesis dissertation advising; in the review and update of the programs and the curriculum; in outreach activities (courses, conferences, congresses and seminars); and in networking activities with the public and private and social sectors (courses, advising and consulting services), among other things, required for the implementation of the profile that sets the agenda for the Professional Development of Professors of Higher Education (PRODEP), the latter applies only to public institutions.
  - The teaching experience of the professors, and
  - The support strategies for the professor to improve their performance.

Therefore, the evidence will consist of paragraphs of the regulations and procedures in which it is stated that the aspects mentioned in the preceding paragraphs are taken into consideration, as well as by the instruments of evaluation of teaching performance where it can be seen the weight given to each aspect.

Finally, this criterion also evaluates whether the norms and calls the evaluation of performance is distributed and disseminated timely among the academic community.

### *1.8. Promotion*

The indicators comprised under this criterion refers to the existence of regulations and institutional mechanisms for promotion (rank movement) of the teaching staff in which there is a clear participation collegiate bodies taking into account the development of the substantive activities (teaching, research and engagement-outreach); (tutoring and advising, external service and publications, among others); the work experience; and their activities are widely made known among the academic community.

A. Annex. Specific Criteria for Academic Staff.

## **2. Students**

Students constitute one of the central parts of an academic program, thence, it is important to learn about its characteristics in terms of academic background prior to entry, performance throughout their passage through the program, peculiarities upon graduation and the levels of quality they develop in the teaching-learning process. It is also important to consider the academic environment where the student is developed, and how the different elements in the education process have an impact on them.

### **Criteria:**

### *2.1. Screening*

Under this criterion, the indicators should make it possible to evaluate whether there are standards and transparent processes for the selection of students, as well as guidelines to provide guidance to applicants with regard to the formalities of admission and for the entrance exam. It is desirable to have as a reference the standardized tests of the CENEVAL, or other similar

### *2.2 Entrance*

It is important to note that this criterion refers to new students, that is to say, to those who have succeeded in their enrollment in the faculty or school. This criterion evaluates if the following actions are taken:

- a) Characterization of new students in order to prevent the problems of failure and drop-out rates, considering the following aspects:
  - Analysis of the results of the entrance exam taking as a frame of reference the standards established by the institutional regulations
  - The academic performance of the previous level to detect situations of risk
  - Placement exams of the English language, as well as other areas in which it is known there are higher percentages of failure in the first semesters
  - Interviews and socio-economic studies,
  - Development of a document that shows the results of the analysis of characteristics of new students to detect risk situations and for the implementation of remedial actions.
  
- b) An induction program to the faculty or school, involving managers, professors, academics, as well as the administrative and support staff to attend the 100% of new students.

### *2.3 Educational Journey*

This criterion evaluates whether there is an information system of the school trajectory of students; and whether educational research is done with these data, in order to implement remedial actions to reduce failure and dropout rates. Proven trend of decreasing failure rates and dropout rates.

### *2.4. Group size*

This criterion evaluates whether the size of the groups, allows for the development of favorable conditions for the student, according to the academic model of the institution.

### 2.5. Degree

As to the degree, this criterion evaluates if the academic program has an effective system for the students to obtain their degree according to the institutional education proposal.

It is also necessary to evaluate if for obtaining the degree, in the case it is provided in the institutional normative, the score on the TOEFL or equivalent is of at least 500 or equivalent in other English language evaluation instrument.

### 2.6. Rates of school performance by generational cohort

This criterion evaluates if the different of efficiency rates can be known systematically and timely:

- Backwardness.
- Desertion.
- Graduation rate. Never less than 20 % by generational cohort.
- Results of the EGEL-CENEVAL.
- Degree

For this purpose, it is necessary to develop tables showing by generation (cohort generation) the following data: number of students admitted, minus dropouts (desertion), then result minus the number of students graduated from this difference it is estimated the number of students with backwardness (failing one or more subjects). In this way dropout rates (number of students who dropped out/new students); and the backwardness rates (remedial students/new students) can be obtained.

Also the completion rate (number of graduates/number of new students); graduate rate (number of graduates/alumni) and the net degree (number of graduates/number of new students) can be calculated.

The data must correspond to the last three school periods.

If information is available, it is very important to present the results of the EGEL-CENEVAL exam. In the same way a table must be drawn up showing the results of the EGEL-CENEVAL exam.

On the other hand, it evaluates if remedial programs have been implemented to reduce the backwardness and dropout rates, as well as to improve results on the EGEL-CENEVAL exam which have an impact on the graduation rates.

Finally, this criterion also evaluates whether there are programs to decrease the amount of non-graduate alumni.

### 3. Curriculum

The curriculum synthesizes the strategy of the program and is considered as the basis of the program. It consists of a description of the knowledge to obtain, and the skills to develop on the part of the student and the resources needed for this purpose.

#### Criteria:

##### *3.1. Rationale.*

This criterion evaluates:

- whether there is an educational model that supports the curriculum and
- Whether there is congruence between the mission, vision and objectives of the curriculum with the mission and vision of the institution; and those of the faculty, school, department or division.
- Whether the programs allow to observe the relevance of the curriculum in relation to the needs of society and the labor market; as well as scientific and technological progress (frame of reference ANIEI profiles).

##### *3.2. Profiles of admission and graduation.*

This criterion evaluates, on the one hand, if the admission profile adequately considers the knowledge and skills that must be met by applicants to the educational program.

On the other hand, it is necessary to evaluate whether there is relevance and congruency of the values, attitudes, knowledge and skills pointed out in the graduate profile with the objectives of the curriculum.

##### *3.3. Regulations for permanence, graduation, and transfer of credits.*

This criterion evaluates whether there is a regulation that clearly indicates the requirements of permanence, graduation, equivalence and transfer of credits of the academic program; and if this information is properly disseminated among students.

##### *3.4. Courses*

This criterion evaluates:

- If the horizontal and vertical articulation of the courses is adequate;
- If there is congruence between the objectives of the courses and the graduate profile;
- If the guidelines of the courses are clear; This criterion also evaluates if the rationale, general and specific objectives, thematic contents, methodology (strategies, techniques, learning resources, use of ICT, among others), evaluation methods, bibliography and professor profile;
- If the courses that constitute the common core and the elective courses are properly defined.
- If there are mechanisms for the collegiality for the revision and permanent updating of the courses.

### 3.5. *Contents.*

The indicators for this criterion must enable an evaluation of the different contents of the curriculum: In the first place those that are common to different areas of knowledge, which must be placed as cross disciplines in the curriculum, mentioning, among others:

- Promotion of the values that allow the implementation of the ethical commitment.
- Promotion of social responsibility and civic engagement.
- Creative capacity.
- Research capacity.
- Ability to learn and be updated permanently (learning how to learn strategies and thinking skills).
- Ability of abstraction, analysis and synthesis.
- Skills in the use of ICT.
- Oral and written communication skills.
- Ability to communicate in a second language.
- Ability to work in multidisciplinary teams.
- Commitment to the preservation of the environment.
- Ability to identify, pose and solve problems.
- Commitment to social - cultural environment.
- Ability to apply knowledge in practice.

This kind of contents can be presented in courses relate to the same, or may be included in any of the topics of the courses. Another option is that in the implementation of the various courses is established that it is necessary to develop this type of so-called generic competencies and as mentioned before must be in cross disciplines through the program.

On the other hand, it is necessary to evaluate the specific contents fundamental to the discipline, as well as the specific contents related to the academic program.

### 3.6. Flexibility.

This criterion evaluates whether there are mechanisms declared in the educational model that will drive the dual training system that allows for the partial accreditation of studies in companies, making changes to the norms if necessary.

Another form of flexibility evaluated is related elective courses and and/or collateral courses. It is important to take into account the relationship between courses with the graduate profile.

Finally, in terms of foresight, this criterion evaluates if there is a possibility to establish flexible curricular models to enable every student to construct his/her own curricular pathway.

### 3.7. Evaluation and updating.

This criterion evaluates whether there is:

- A methodology for the update or modification of the curriculum at least every five years,
- Mechanisms to ensure the participation of professors in collegiate fashion,
- The diagnostics and prospective studies at local and global level: social needs, scientific and technological advances and changes in the labor market to support the updating of the curriculum or the creation of new academic programs.
- Efforts aimed at the development of new forms and spaces of relevant educational in correspondence to social needs and making intensive use of information technologies. Thus, among other things, they should be oriented toward the promotion of open and on-line education. For this purpose it is necessary to take into consideration the following aspects:
  - a. Include regulatory aspects and establish generally applicable criteria for open and on-line education to provide services and support to students and professors, both for comprehensive programs and to facilitate the development of learning units or on-line courses,
  - b. Incorporate the teaching of new technological resources,
  - c. Develop multimedia teaching materials,
  - d. to make investments in the technology platforms that requires on-line education,
  - e. Use the technologies for the training of managers, professors and ancillary staff in the modalities of face-to-face, open and mixed educational models,
  - f. Design and operate a strategy for monitoring and evaluation of the results of the academic programs in the open and mixed educational modalities,
  - g. Design new educational models

### 3.8. Dissemination.

This criterion evaluates the various mechanisms for the dissemination of the curriculum: campaigns in institutions of middle-upper level (conferences, participation in expos and leaflets, among others); mass media (press, radio and television); and guidance to the people who come to the institution looking for information.

### 3.9. Rationale for competencies.

Competencies of the program to be evaluated must be analyzed, considering the competencies defined by the ANIEI in its most up-to-date version, justifying to the A, B, C or D profile of the model through a matrix.

Note: See Graduate Attribute Standards, and Mapping of Graduate Attribute Standards. <https://www.conaic.net/ingles/formatos.html>

## ***Methodology to determine the Curricular Criteria***

### **Unit of Measure**

To be able to compare the curricula of various programs, reference is made to *Units* in each course. For the purposes of equivalence, a *Unit* equals 1 hour of theory in class, or 3 hours of practice in class (in the case of Higher Technical Degree the ratio is 2 hours in class). The Commission recognizes that there are new pedagogical models where students are engaged in autonomous learning; in these cases, the institution seeking accreditation must justify the equivalence used for the number of Units.

### **Curricular profiles<sup>1</sup>**

The profiles considered in this document correspond to the four development domains in Informatics and Computing, identified in the following fashion:

1. BSc. in Informatics
2. Software Engineering.
3. BSc. Computer Science
4. Computer Engineering

The institutions that accreditation for a program in informatics and computers with a name different to these, should indicate the profile with which they wish to wish to obtain the accreditation.

---

<sup>1</sup> Approved by the 14th general assembly of the ANIEI

The program must meet the following *minimum units* of each area of knowledge, regardless of the chosen profile for the program:

**UNITS BY GENERAL AREA:**

AREA OF KNOWLEDGE	Minimum Units
Social sciences, humanities and other	300
MATHEMATICS AND BASIC SCIENCES	420
INFORMATICS AND COMPUTERS	1,000
<b>MINIMUM TOTAL UNITS OF THE PROGRAM</b>	<b>1,720</b>

To achieve each of the mentioned profiles it is necessary to cover the *minimum units* listed for each area of knowledge of informatics and computer science, according to the following classification:

**UNITS OF INFORMATICS COMPUTER SCIENCE**

AREA OF KNOWLEDGE	A	B	C	D
SOCIAL ENVIRONMENT	300	125	100	100
MATHEMATICS	100	125	250	175
COMPUTER ARQUITECTURES	50	75	100	175
NETWORKS	75	75	100	150
back-end SOFTWARE	75	75	100	125
SOFTWARE PROGRAMMING AND ENGINEERING	175	225	200	175
TREATMENT OF INFORMATION	175	200	75	50
HUMAN-MACHIN INTERACTION	50	100	75	50
<b>MINIMUM TOTAL UNITS OF INFORMATICS AND COMPUTER SCIENCE</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>

- A: BSC IN INFORMATICS
- B: SOFTWARE ENGINEERING
- C: BSC. IN COMPUTER SCIENCE
- D: COMPUTER ENGINEERING

**4. Evaluation of Learning**

Learning is understood as the set of experiences arising from the acts of communication carried out under cultural contexts between teachers and students, in both directions, through a medium and using specific contents resulting in qualitative changes in the participants, manifested by the acquisition and construction of knowledge, development of skills and abilities, assumption of attitudes and values and in general the student's growth as to consciousness and responsibility in society.

**Criteria:**

*4.1. continuing Evaluation Methodology*

This criterion evaluates whether:

- Professors apply formative evaluation strategies which allow for the verification of compliance with the objectives of continuous learning,
- The evaluation, formative and summative strategies are laid down in teach course and are consistent with the curriculum,
- They are known by the student and academic communities.
- **It considers evaluation of both generic and specific competencies.**

For this purpose it is necessary to review:

- The didactic implementation of the courses,
- The logs or records of teachers, in order to for them to be aware that generic and specific competencies are continuously evaluated, or their equivalents in the case of the academic model different to the none base on competencies,
- The methods for the preparation of exams and grading,
- The portfolios of evidence consisting of selected works of students, both individual and in teams, which show evidence that the learning objectives have been met. That is to say that the students carry out the tasks as a result of the understanding of the knowledge and the development of the skills proposed in the objectives of the course. With the same aim, in case portfolios of evidence are not used other various works developed throughout the semester, individually or in teams can be presented.
- **Certification of competencies under national or international standards according to the profile of ICT be evaluated (A,B, C or D).**

Note: See Graduate Attribute Standards, and Mapping of Graduate Attribute Standards. <https://www.conaic.net/ingles/formatos.html>

*4.2. Incentives to academic performance.*

The indicators of this criterion should make it possible to evaluate whether:

- The institution has a scholarship program for high achievement students and/or low income students for the retention of students at risk of dropping out of school.
- the institution disseminates information on scholarships granted by private institutions (for example TELMEX and private funds) and the public sector,
- the institution operates programs of incentives and recognitions, such as diplomas and awards events,
- The institution makes public the procedures for the granting of scholarships, awards and incentives.

### **5. Integral education**

It is understood as all the programs and processes that allow the student access to an education enabling him/her for a proper integration to society as an active and proactive individual.

#### **Criteria:**

##### *5.1. Development of entrepreneurs.*

Criterion evaluates if the program fosters an entrepreneurial culture among students through the operation of programs for the development of entrepreneurs, business incubators or equivalents.

For this purpose, it is necessary to know:

- The number of students and professors participating in the program,
- The number of companies promoted,
- In-house events and
- Events held by other educational institutions which the students attend as long as they receive proper certificates of attendance.

##### *5.2. Cultural activities.*

The sectorial program of education raises the need to strengthen the access of the student population to the manifestations of the cultural heritage and diversity, through traditional mechanisms, and with the use of digital technologies.

Under this premise, this criterion evaluates the degree of active participation of students in artistic and cultural activities within the campus; also evaluating also if there are mechanisms and instruments for the registration of students from other institutions.

It is necessary to know:

- If there is a program for artistic and cultural activities,
- The number of workshops (dance, theater, music, among others) and the number of participating students,
- The events organized inside the campus (staging, competitions and exhibitions, among others) and the number of students participating,
- Outside events involving the representative groups and the number of students constituting them
- Students who continuously participate in events outside the campus, and
- and if the institution enable access to art and culture through the use of information and communication technologies,

### 5.3. Physical and sports activities.

Regular and systematic practice of physical activity and sports is a fundamental component for integral education. Understanding its benefits has been recognized internationally. Chronic and degenerative conditions such as high blood pressure, diabetes, atherosclerosis and obesity, which, according to health statistics, have increased in recent years, have a high relationship with physical inactivity in adulthood. In addition to the benefits for the health, physical and sports activities favor coexistence, cooperation, discipline, and other values that are part of the academic curriculum offered to students for an integral education.

The practice of sports can also be carried out in after-school hours.

Taking into account the provisions above, this criterion evaluates the student participation in various massive sports disciplines, or forming part of the selected teams. It also evaluates the number of students who develop physical activities in the gyms within on campus, through agreements that allow the use of facilities outside the walls.

It is necessary to know:

- If there is a program for physical and cultural activities,
- The number of sports disciplines and the number of students who practice them,
- The development of actions that will motivate students to practice regular physical and sporting activities
- The in-house events (competitions and tournaments, among others) and the number of students participating,
- Outside events involving the representative groups and the number of students constituting them
- Students who regularly go to the gyms, when there is one within the campus, or at external locations.
- If strategies are implemented for the practice of sports outside of school hours in facilities off campus.

*5.4. Career guidance.*

This criterion evaluates whether institution has implemented programs:

- that o promote the scientific-technological education and support the academic program with events and curricular and co-curricular courses such as conferences (face-to-face and distance), seminars and congresses, among others, with the participation of national and international experts,
- Career guidance for students of the last semester, with clearly defined roles for insertion into the labor market (workshops for the development of curriculum vitae and to attend job interviews; job fairs; visits of companies to recruit candidates; as well as lectures by national and international experts about the skills required in the labor market, among others).

This criteria also can take into consideration events organized by associations of students within the institution or by another institution.

*5.5. Counseling.*

This criterion evaluates if the Institution has implemented an Institutional Program for Psychological Counseling to provide help to students operation of an Institutional Program of counseling to support students when help is needed; and for prevention of risk attitudes for individual factors (addiction, violence, as well as reproductive and sexual orientation, among other aspects) that can result in the dropouts.

*5.6. Medical services.*

This criterion evaluates the medical services in two aspects: on the one hand, preventive activities (campaigns, conferences, courses, printed material) to instill healthy lifestyles in the students and the community in general, as for example to have a tobacco-free campus and combat obesity problems; and on the other hand, the medical care provided to the community when required.

*5.7. School-family link.*

For the integral formation of students it is convenient to have communication with parents, so in this criterion evaluates whether there are:

- Induction courses in order for parents to know the philosophy, facilities, and organization of the institution.
- Periodical publications that report on the academic life of the school,

- Orientation courses for parents on the native generation of communication and information technologies, and
- Invitation to institutional ceremonies, artistic and cultural events, among other examples.

## 6. Support Services for Learning

Refers to the conditions and characteristics of the human resources dedicated to support the tasks related to the teaching-learning process of the program.

### Criteria:

#### 6.1. *Tutoring*

This criterion evaluates whether the institution has implemented and operates an institutional tutoring program.

For this purpose, it is necessary to have information about:

- If there is training for training tutors,
- If all the full-time professors collaborate properly in the program by contributing to the formation of the students receiving tutoring in all related dimensions (individual, social, emotional, cognitive and physical),
- And if there are mechanisms and instruments in place for the tutoring program to be evaluated by the students and its impact on the graduation rates (reduction of dropout and failure; and increase in completion and abstention of degree rate).
- Measuring the impact of the tutoring program.

#### 6.2. *Academic Advising.*

This criterion evaluates whether there are mechanisms and instruments to support students with academic advising aimed at the resolution of learning problems and doubts with respect to the contents of the courses. Although the granting of such advisory services can be provided by all the professors, it is recommended that full-time professors become the most committed with this program.

Under this criterion, it is also necessary to evaluate the impact of academic advising on the decrease of failure rates.

#### 6.3. *Library-Access to information.*

This criterion evaluates the quality of library services and access to information, it is necessary to know if:

- the capacity of space and furniture is adequate to the users' needs,
- the library have the titles and access to satisfy to meet the requirements laid down in the courses and id it updated and organized to facilitate the search and queries,
- There is a program of acquisitions of books and magazines, timely, consistent and responsive to the needs of the educational community, and if the collegiality is involved in its design.
- there is a sufficient amount of subscriptions to periodicals in the disciplinary field, in printed and electronic media,
- There is a service of digital libraries, video library, newspapers, internet and take away loan and interlibrary loan, among others.
- there are adaptations for people with disabilities and
- There are mechanisms and instruments in place allowing to know the opinion of the users as to the quality of the services offered by the library.

#### *6.4 Technological and Learning Platform*

Software, environment or learning environment that the institution used as a mechanism to create, approve, manage, store, distribute and manage the contents and activities of teaching and distance, virtual or on-line learning, and even as a complement to the learning in the classroom. This criterion focuses on managing content created with a wide variety of sources, serving as support for the actors of this modality, such as students, teachers, tutors, administrators and guests. The intention is to make available to students the methodology embodied in the organization or didactic structure of the materials, tasks, forums, chats (among others) created by a group of teachers to promote the learning in a particular area. Among the functions of these learning environments is to manage users, resources, training and contents; manage access; control and follow-up of the learning process; to do evaluation; generate reports; manage communication services such as discussion forums, video conferencing, among others.

#### *6.5 Material and Learning Resources using educational technology*

The materials and resources or learning play a very important role in the teaching-learning process be it face-to-face, virtual, distance or on-line, but for the non-face-to-face educational modality, these resources become indispensable. This requires to make sure that the material has a functional didactic structure, that it supports autonomous learning of the student and to allow the interactivity between all the participants in the learning process.

### *6.6 Integration of the participants of learning*

These represent all those involved in the teaching-learning process and those that are support for the administration of the technological platform and learning. Thus, this includes professors or facilitators of learning, tutors or advisers, students, and administrators of the learning platform, support and development.

## **7. Engagement – Outreach**

Informatics and computing are fundamental elements for the development of the country. The engagement with the productive sector or services, in these disciplines, constitutes one of the factors that is essential for national progress; therefore, it is desirable that these activities have a substantive role of all academic program in these areas.

The engagement department of an institution is represented by the collaboration of the institution with the social and productive sectors which allow the program to meet the needs and demands of these sectors and take advantage of the opportunities that provide for its development.

Outreach activities are those that communicate to society the values of the technological culture and in particular those which relate to the program. The outreach of a program must happen through professional development, the direct services related to the program and social service.

### **Criteria:**

#### *7.1. Engagement with the public, private and social sectors.*

In accordance with the international and national educational policies, it is important to strengthen the cooperation education-enterprise to promote the updating of curricula and programs of study, the employability of young people and innovation.

Therefore, this criterion evaluates whether:

- The institution has agreements with organizations of the productive and social sectors for students, teachers and researchers to conduct technical visits, school practices and professional stays, also, the relevance of the products obtained,
- Policies are implemented regulate professional practices and internships in the workspace,
- There are training programs for students through scholarships granted by the companies to carry out technical activities in specific projects or for them to be trained in emerging disciplinary themes specific to the discipline of the program and/or to have access to specialized equipment with modern technology; elements that facilitate their insertion in the labor market,
- There is a Council of Engagement or equivalent with the participation of professors, researchers and personnel of the companies to intervene in the review and update of the curriculum; and to give courses and conferences;

- There are mechanisms and instruments to measure the extent of the engagement of the HEI with the productive sector.

### 7.2. *Follow-up of graduates.*

The follow-up of graduates is an activity of primary importance in the national and international educational policies, thus this criterion is used to evaluate whether:

- There are up-to-date databases of graduates of the academic program,
- There are periodic surveys conducted among employers aimed at knowing the professional performance of the graduates,
- There are periodic surveys carried out among the graduates for their work situation and the degree of satisfaction with the relevance of the program,
- There is a document that shows the analysis of the results of the surveys, as well as mechanisms to incorporate these results to review and update the curriculum.

On the other hand, it is also important to evaluate whether there are mechanisms to ensure that the graduates will contribute to the improvement of the academic program, through the provision of conferences or training courses.

### 7.3. *Academic exchange.*

This criterion is required to evaluate the academic cooperation plans for the internationalization of higher education, thence, they considered the following aspects:

- The student mobility programs that contribute to their integral formation and the number of students who are participating in the same,
- The number of professors and researchers who participate individually or in institutional knowledge networks, national and international with peer HEIs both domestic and foreign,
- The products obtained and their relevance to the improvement of the academic program.

### 7.4. *Social Service.*

This criterion evaluates:

- whether the social service is regulated properly and if there are procedures in place to control the activities carried out by students to cover the total of hours of social service established in the program, the progress reports, and the document to release the social service,
- If the students who are doing paperwork for obtaining the degree have participated in the social service program, and
- If there are Instruments and mechanisms to evaluate the impact of the activities of the social service for the benefit of society, with special reference to the

objective of achieving greater productivity in small and medium enterprises and companies in the social sector.

7.5. *Career office*

This criterion refers to the operation of an area that facilitates insertion in the labor market of the students when they finish studying. This requires information on the location in the organization chart, a list of people operating there, a list of students and alumni attended by this office and also a list of the companies with which the institution keeps a relationship with the purpose of employability, one of the main objectives of engagement.

7.6. *Outreach*

Outreach refers to all the activities of the institution of higher education through which it distributes and disseminates the knowledge and culture in the community or among the population. In this sense, it is necessary to evaluate the different mechanisms and instruments with which the faculty, school, department or division performs this substantive role, among which are the following:

- One or more specialized areas to boost the quality and updating of professionals by offering courses and diplomas of continuing education open to the community and to the general public in different modalities (face-to-face, semi-distance learning, and distance learning and e-learning); having formats for evaluation on the part of the people who receive the training,
- A Foreign Language Center, and have details on the number of students being attended to, number of foreign languages offered, lists of participants by level and the evaluation of the courses by people attend the courses,
- External Service to provide technical advice to individuals or companies with the aim of enhancing the competitiveness of the same, applying top-notch knowledge and technological advancements; service which allows to obtain additional financial resources for the program, and
- A program of community services that includes events of cultural dissemination, technical assistance and training free of charge; education for adults; campaigns for the preservation of the environment; editorial work that allows the dissemination of science and culture; and help in case of disasters, among others.

**8. Research**

Research in informatics and computer science is the process of creation of new knowledge or the organization of the already existing knowledge, for use in a physical device, a methodology, an approach, a structure or a process, designed to meet needs or gaps of knowledge in the benefit of the community. For this criterion at the level of

higher technical degree the same conditions will be considered for technological development as research due to the profile of the area.

**Criteria:**

*8.1. Research lines and projects.*

This criterion evaluates whether there are guidelines:

- For the coordination of the institutional research activities (Calls for proposals, definition of the profiles of the participants, and requirements for the submission of protocols, among other aspects),
- there is a clear definition of research lines the generation and application of knowledge in priority areas of the country, lines that must therefore be linked to institutional, regional, state and national development programs; with the productive sector and the social sector; and with the curriculum of the academic program, including aspects of educational and technological innovation,
- That there is reference to the evaluation form so that the programs and projects stemming from the research lines can be approved and funded,
- to promote knowledge networks in which there is participation of higher education institutions at national and international level

Also, evaluates whether they operate programs for the training of researchers aimed at professors and students, conducted by expert researchers to promote the participation of professors and students in research activities and to promote the engagement of researchers and professors of the academic program to collaborate on curriculum development activities, external service, continuing education, dissemination of science and technology, and participation in knowledge networks, among other activities.

Another aspect to evaluate is the implementation of research projects jointly with the productive sector; and if research promoted to attend the needs of the social sector.

On the other hand, it evaluates the promotion to the collegiate and multidisciplinary research of the use and development of technologies applied to education, in order to incorporate in teaching-learning strategies technological resources, as well as designing new educational models.

Finally, this criterion is necessary to evaluate the number of programs and/or research projects registered and approved by a collegiate body with verifiable results, as well as the number of researchers and students involved in their development. It is important to request for the protocols, the copy of the advance reports and/or the final reports; as well as the relevance of the products obtained.

*8.2. Resources for research.*

This criterion evaluates the following aspects:

- The mechanisms for the establishment, development and consolidation of research groups that encourage the participation of professors, students and researchers and
- The funding for the development of research, resulting in a need to append a copy of the financial resources allocated to the projects.

*8.3. Dissemination of research*

This criterion evaluates the number of research papers published in major national and foreign scientific journals; and presented in national and international conferences, published in the proceedings of the same.

*8.4. Impact of research*

This criterion evaluates the transfer of research results to the technological advance (generation of patents, for example); as well as to create networks of collaboration with other public and private institutions interested in using the knowledge as an element of economic competitiveness, job creation, innovation and social cohesion.

On the other hand, this criterion also evaluates whether the results of the research have an impact for the improvement of the academic program and for the generation of educational innovations.

In this regard, it evaluates the engagement of between research and teaching, considering:

- Mechanisms for the incorporation of research results to the teaching practice, which represent innovation in the area of education.

**9. Infrastructure and Equipment**

Infrastructure and equipment is a fundamental element for which the program's activities to be carried out in an efficient manner and that in which it would be possible to meet the objectives of the program, thereby helping to ensure the quality of the same.

**Criteria:**

*9.1. Infrastructure.*

This criteria evaluates the adequacy and the rational and efficient use of infrastructure:

- Classrooms, laboratories and workshops, in accordance with the number of students, the area of knowledge, the modality of teaching and the types of courses,
- work cubicles and lounges for the teaching staff,
- spaces for the development of events and artistic and cultural activities, as well as physical sports, and
- Adaptations to the infrastructure for people with disabilities.
- Other important aspects to be evaluated in terms of infrastructure are:
  - Preventive Maintenance Programs,
  - The effectiveness and efficiency with which the requirements of teachers and students are met for the corrective maintenance of the educational and research spaces,
  - And Programs of Safety, Hygiene and Civil Protection to eliminate risk factors in the institutional activities.

### *9.2 Equipment*

This criterion is intended to evaluate whether:

- The educational program has adequate computer equipment for students to develop the skills to use information and communication technologies (ICT) in support of its academic training; for teachers or facilitators, as well as for researchers to conduct their work in a satisfactory manner; and for the administrative and support staff to facilitate their academic and administrative activities,
- There is a the printing service in those physical spaces that the institution has provided for student support,
- the students have access to audiovisual equipment, sufficient and suitable for the development of educational activities (TV sets, CD players, DVD players, USB, or Blue-Ray players, as well as projectors, among others),
- there are communication systems and equipment suitable for the development of academic and administrative activities (internet),
- The academic program has a LAN network service in the physical spaces intended for the support of the students.
- students have access to software appropriate to the needs of the educational program and with the current licenses or free software

The evaluation of the equipment must be done according to the requirements of the curriculum, the number of students and their functionality (updated).

Finally, an element of key importance to evaluate is whether there are programs in place for preventive and corrective maintenance so that the most of the equipment is in operating conditions all the time.

## 10. Management and financing

Management determines the operating conditions an academic program, the amount of funding available to cover payrolls of the academic and administrative staff and for investments and operating expenses, as well as the balance between the items and the sources of these funds. It is considered essential to have mechanisms in place for administrative and financial planning.

### Criteria:

#### *10.1 Planning, evaluation and organization.*

This criterion is evaluated through a series of indicators if school, department or division, with instruments of planning, assessment and organization to ensure effective and efficient administrative management.

As to planning, the indicators make it possible to evaluate whether the mission, vision, policies and strategic lines of the institution are explicit and articulated in an institutional program of long-term development (LTD) that serves as a guide for the academic-administrative organization.

The ideal is that the LTD has a time horizon of 10 years or more. In the event that this horizon is not allowed in the internal regulations, it must at least be of five years. In addition, it must be based on diagnostic and prospective studies; and have mechanisms in place for dissemination among the campus community.

The indicators should also refer to the need for formal programs of investment to adapt the physical infrastructure and equipment to the development of academic activities for the next five years at least; and a comprehensive and permanent quality assurance of educational quality, with the possibility of considering the efforts in the field of accreditation and the implementation of ISO 9000, among others.

In the area of evaluation, the indicators make it possible to evaluate the degree of compliance with the strategic objectives set out in the Institutional Development Program; for this purpose it is necessary to review integrated evaluations relating to the goals set forth in the medium-term programs and operating goals in the short-term, and the results achieved. This criterion, while the programmatic follow-up of the Annual Operating Program - established for the public HEI – can be useful in the short term, it is also necessary to have documents showing the results of an evaluation in order to

know the progress or areas of opportunity (analysis of strengths, opportunities and threats in the long term).

Another aspect is aimed at evaluating whether the academic program, has implemented periodic evaluations of the environment and social impact. Thus, it is necessary to establish a methodology. On the other hand, documents are required where the results of the evaluations are shown.

And finally, this criterion evaluates whether there are mechanisms and instruments in place to convey the results of the evaluations to those responsible for the school management for decision-making and the design of improvement programs. It is necessary to append the documents of benchmark results and the improvement programs developed.

As to organization, it is necessary to evaluate whether there are forms of organization of the various, flexible and democratic academic bodies promoting collegiate decision-making and the involvement of professors in associations, professional bars, committees and networks of collaboration, among others.

On the other hand, this criterion also evaluates whether there is explicit and up-to-date documents (manuals) where the functions of those responsible for the educational administration are clearly defined, including collegiate bodies, procedures for the operation of the educational service and whether there are operating collegiate bodies in involving teachers and students.

### *10.2 Administrative, Support and Service Human Resources.*

This criterion evaluates the number of administrative, services and support personnel (considering separately the staff providing temporary services) with the, school, department or division; whether there is a program in place for the training and development of this type of personnel; and, finally, if there is a program of incentives and awards.

### *10.3 Financial Resources.*

The indicators of this criterion should make it possible to evaluate whether:

- The structure of the funding, i.e. the percentage share of the resources allocated directly by the institution; self-generated resources that relate to those obtained for the lending of services: continuing education, external services (consulting, and special projects that have as a characteristic that are commissioned by an institution for a certain period of time), language centers, senior seminars, tuition fees, graduate level courses); donations and others. In this case the presentation of a graph showing the percentile composition of the resources integrating the funds. See annex 1 of the Evaluation Instrument,

- The institutional procedures for the allocation and use of resources,
- The programs-budget that make it possible to observe the articulation of the goals with the resources for the proper functioning of the educational service in the academic and administrative areas,
- The accounting systems for the registration and control of financial resources,
- The transparency and accountability mechanisms, among which we can mention budget tracking and internal and external audits, among others.

## V. Follow-up of Recommendations

In order to verify the improvements in the academic program, based on the evaluation for the purpose of accreditation, CONAIC formulates recommendations arising from the problems identified in the program being evaluated. Once they are received by the HEI, The institution commits itself to observe the recommendations under the terms agreed between upon the HEI and CONAIC.

The AB acquires attributions require, where appropriate, the information necessary to verify the progress made in the implementation of commitments, and implement follow-up to ensure the good progress in the implementation of actions to address the recommendations issued.

## VI. Glossary

<b>Academia</b>	It refers in universities and other institutions of higher education to the set of activities of teaching, research, dissemination and preservation of culture. In some centers of higher education, it applies to the association of teachers of an area of knowledge, of a group of subjects or a department.
<b>Library collection</b>	Collection of books, magazines and other informational vehicles accumulated by a library, school, institution, etc.
<b>Accreditation</b>	1. It is the recognition of the quality of the programs or of an institution of higher education. It consists of a process that is based on a prior evaluation as to principles, criteria, indicators and standards of quality established by an external agency to institutions of higher education. The process includes a self-evaluation of the

institution, as well as an evaluation by a team of external experts. In all cases, it is a temporal validation, for a number of years. Accrediting agencies or bodies are, in turn, accredited on a regular basis. (1)

2. It is a public testimony of good quality issued periodically by an external accreditation body, non-governmental, specialized and recognized by the COPAES, which ensures that the program complies with pre-established homogeneous principles, basic standards of good quality in their structure, functioning, and in the follow-up results, all aimed at the improvement of the educational quality.

3. Grant credibility. It is assumed that such attribute is the result or consequence of a valid and reliable evaluation. It is granted to non-personal entities, such as programs or institutions. (3)

**International accreditation Accredited**

It is granted by accrediting agencies of other countries, which must be formally recognized by the COPAES. (1)

It applies to the Higher Education academic program that has been recognized for its good quality by an accreditation body. (3)

**After-school activity.**

Activity that is not part of the curriculum of the program and is designed to support the integral formation of students. (4)

**Update**

Action and effect of being up to date. (3)

**Teacher updating**

Action and effect to bring up-to-date practices and methods of teaching and learning. (3)

Strengthening of skills, competencies and capacities of academic staff of an institution of higher education on the basis of the update of knowledge in specific areas. (4)

**Agency**

Also called accreditation body. Non-profit civil association, national or international, external to the institutions of higher education, dedicated to the accreditation of the institutions and their programs. It evaluates the quality of education and grants public accreditation to programs and institutions. Accrediting agencies or bodies are, in turn, recognized by COPAES. (1)

Generically, it can be accrediting agencies or bodies. (3)

**International agency Student**

Agency whose activity is carried out in two or more countries. (1)

1. Person who is officially registered with that quality at an institution of higher education. (3)

2. A student enrolled in a program in an institution of higher education. (1)

**New Student**

1. A student who enrolls for the first time in an educational institution or program. (1)

2. First entry student (3)

**Annual**

1. That happens or is repeated every year. (3)

2. That lasts for a year.

3. It is said of the courses which covers almost the entire school year and that in practice contain about 30 weeks OF effective classes, not including enrollment periods or exam periods. (3)

**School Year**

A one-year period that begins with the opening of the public schools after the holidays of the previous school year. (3)

**Academic Year**

One-year period in which the courses are given in an educational center. (3)

<b>Academic Support</b>	Set of elements that are arranged around the students and teachers and collaborators to facilitate the academic activities of the institution, and are essential for the successful achievement of the institutional mission and objectives. These resources include the library and information centers, laboratories and workshops, tutoring and the information technology resources, electronic communication and educational support. (4)
<b>To pass</b>	In a course or examination, to assign one person a score equal to or greater than the minimum passing grade. (3)
<b>Area of knowledge</b>	Part of the set of scientific, literary, artistic or professional knowledge of a subject, discipline or field of interest. Areas of knowledge correspond to a first partition of the total knowledge. The areas established by the Mexican Classification of programs of study for 2011 Academic fields are: 1) Education. 2) Arts and the humanities. 3) Social Sciences, administration and law. 4) Natural sciences, exact sciences and computer science. 5) Engineering, manufacturing and construction. 6) Agriculture and veterinary medicine. 7) Health. 8) Services. (8)
<b>Quality Assurance</b>	Actions carried out by the educational institutions in order to ensure the effective management of the quality. The term is also applied to agencies or accrediting entities. (4)
<b>Academic Advising.</b>	1. Advising provided by a professor (called for this reason, advisor), which is a service provided out of regular teaching hours, to resolve any doubts or questions of students or groups of students on themes of his specialty. (3) Among the substantive functions which exerted by an advisor are: the revision of the educational program, guidance to students in terms of content and the development of work and learning evaluation.(1) 2. Counselor, advisor or guide of one or several students who are enrolled in formal studies in any of its forms: face-to-face, open, distance or continuing education. (4)
<b>Course</b>	1. The basic unit of a curriculum that includes one or more topics of a discipline, the treatment of a problem or an area of expertise 2. Course, discipline, subject, module. (3)
<b>Elective course</b>	Course belonging to an area of intensification of knowledge of a program and in which the student may be enrolled to complete the required credits in the curriculum. (4)
<b>Applicant</b>	Person who applies to be admitted as a student in a higher education institution. (3)
<b>Community Care</b>	Attention that an institution of higher education, through its students and professors, lends to a community in legal matters, health, education, housing and environment, among others. (3)
<b>Classroom</b>	Place where give classes given and for carrying out other activities of teaching-learning in schools. Synonym: schoolroom. (3)

<b>Institutional self-evaluation or of academic program</b>	<p>1. The process by which an educational institution or an academic program, quantifies and qualifies its goals and achievements in a given period. (3)</p> <p>2. It is also called self-study or internal evaluation. It is an internal process that seeks to improve the quality of the education. It results in a written report on the functioning, processes, resources, and results of an institution or program of higher education. (1)</p> <p>When the self-evaluation is carried out with a purpose of accreditation, it must conform to the criteria and standards established by the agency or accreditation body. (1)</p>
<b>Expert pool</b>	See catalog of evaluators.
<b>References</b>	List of books on a certain subject, or with information about them. (3)
<b>Libraries and information resources</b>	Among the criteria for accreditation of higher education institutions there usually is a criterion referring to the documentation and information resources: libraries, newspaper archives and other technology or information centers. The institution of higher education should ensure that students use those resources. (1)
<b>Quality of education</b>	<p>1. At the governmental level, quality is translated into effective, timely, and transparent services that are always looking for innovation and continuous improvement to meets the needs and expectations of the users, with strict adherence to the regulatory framework and the objectives of the National Program of Education. (3)</p> <p>2. The attribute of an institution or program that meets the standards previously established by an accreditation agency or body. To be measured properly it usually involves the evaluation of teaching, learning, management, and the results obtained.(1)</p>
<b>Campus</b>	Location hosting an institution of higher education. It is usual that a large university has several campuses, often distant from one another. (1)
<b>Program</b>	Set of studies that enable or train the individual to exercise of a profession. (3)
<b>Category</b>	<p>1. Categories are those allowing for grouping the elements with common features, which will be evaluated by CONAIC. (2)</p> <p>2. Each group of things or persons of the same kind to be classified by its importance, grade or hierarchy. (3)</p> <p>3. Issues subject to evaluation (5)</p> <p>4. Each category is defined by a minimum set of criteria, whose features are intertwined to obtain academic productivity that is expected from the program. (6)</p>
<b>Professor Category</b>	Classification assigned by a statute or rule of law to university professors, after an evaluation of their academic and professional performance in a formal call or by examination for a teaching position. (4)
<b>CENEVAL</b>	Centro Nacional de Evaluación para la Educación Superior A.C. The National Center for Higher Education Evaluation
<b>Certification</b>	The result of a process that verifies and documents compliance with quality requirements previously established. It can refer to processes or people. (1)
<b>To certify</b>	To declare one thing as certain; particularly by an officer with

	authority to do so, in an official document. (3)
<b>School period</b>	School Year (3)
<b>Faculty</b>	It is used to refer to the group of professors of a university. (1)
<b>Cohort</b>	Group of people who start their studies in an educational program at the same time, that is to say, in the same school period. Synonym: Class, like in class 2017. (3)
<b>Collegiate fashion</b>	In the form of a school or community. (3)
<b>Collegiate</b>	At universities, it applies to the various councils and government bodies with the participation of the teachers. It also applies to the actions of these councils and organs. (1)
<b>Collegiality</b>	In some universities, name of certain councils or bodies of government. (1)
<b>External evaluation commission</b>	Team of peers who visit the institution of higher education which has requested accreditation in order to assess their quality. (1)
<b>Competence</b>	Set of knowledge, skills and abilities, both specific and cross-cutting, which must be developed by a student to meet the social demands. (1)
<b>Learning Communities</b>	Sustained and cooperative interaction between students of one or more universities, both nationally and internationally, with the participation of professors and other experts, as well as institutions that share ideas and learning resources, and collaborate in the realization of common projects. These offer the opportunity for interaction on any subject, with colleagues and experts from around the world with the active participation in the construction of knowledge and the exchange of information. The communities or learning networks represent an alternative for continuous learning. (4)
<b>Congruency</b>	According to o in accordance to or corresponding to a given thing. (3)
<b>Council</b>	1. The advisory body responsible for reporting to the government or other agencies on certain matters. (3) 2. The representative body made up of professors, students and administrative staff, which has among its main functions to draw the main lines of action of the university. (4)
<b>Council for the Accreditation of Higher Education (COPAES)</b>	It is the only body empowered and recognized by the Department of Public Education (SEP) that authorizes and regulates the national and international OAs involved in the processes of accreditation of academic programs and institutions of higher education in our country.
<b>Transfer of credits</b>	Recognition as equivalent, credits or studies in another institution of higher education. (1)
<b>Credit</b>	1. Unit of measure of the academic dedication - hours of class or student work - which involves a subject, course, or module. (1) 2. Unit for evaluating the work of learning in a course or subject within a curriculum. (3) The recommendation of ANUIES National Association of University and Institutions of Higher Education, observed by virtually all institutions of higher education in the country are: practical activities, such as workshops, laboratories or field practices and those devoted to the exercise of skills, are assigned one credit for each hour-week

of activity. The activities of conceptual and theoretical development, and which require more study time for students outside the classroom are assigned two credits for each hour-week of activity. (3)

<b>Criterion</b>	<p><b>1. An instrument that allows to analyze levels of quality with varying degrees of specificity. Out the criteria, standards and indicators tend to be derived. (4)</b></p> <p><b>2. Description of the trend of an activity defined in the program; it allows for the analysis of the cognitive processes, from the planning to the impact on the results. They are also verifiable, relevant and specific, with guidance and predictive capacity. (6)</b></p>
<b>Specific Criterion</b>	<p><b>The specific criteria are defined a priori, on which value judgments will be made. They describe the different elements that make up a category of analysis</b></p>
<b>A cross-cutting criteria</b>	<p><b>Points of view from which evaluation will be made: relevance, sufficiency, suitability, effectiveness, efficiency and equity.</b></p>
<b>Academic Body</b>	<p>Group of full-time professors pursuing common objectives in the generation of knowledge or the innovative application of the same, and who collaborate to develop the teaching of courses of common interest.</p>
<b>Consolidated Academic body</b>	<p>One that has a significant number of professors with the desirable profile (Ph.D.) and who fulfill their academic functions with international standards.</p>
<b>Academic Body in forming stage</b>	<p>One that have well identified its members and to the lines of generation or application of knowledge; with some professors with desirable profile.</p>
<b>Curriculum</b>	<p>1. m. Curriculum of an educational program.</p> <p>2. Set of courses to obtain a certain title or academic degree that must be passed to obtain the degree.</p> <p>3. It is also called curricular structure. It is similar to the concept of plan of studies, i.e. the set of subjects or courses as well as the academic requirements in a program.</p>
<b>Course</b>	<p>1. Series of teachings on a subject, developed with unit, taught within a school period. (3)</p> <p>2. Matter, subject, teaching-learning unit. (3)</p> <p>3. Period or academic year. It can have a three-month period, four-month period, semester or year. It is also used to refer to subject, or module. (1)</p>
<b>Technological Development</b>	<p>Successive set of actions aimed to give rise to new techniques or new processes of production of goods or services, or with the aim of improving the existing ones.</p>
<b>Academic Performance</b>	<p>Action or effect of performing in the academic work.</p>
<b>Dropout.</b>	<p>1. Quantification that indicates the proportion of students suspended, change program, or drop out before completing the program. It is usually measured in the early years of a program and is defined empirically in different ways. (1)</p> <p>2. Number of students who leave the system of higher education between one and the next academic period (semester or year). (4)</p>
<b>Didactic</b>	<p>Pertaining to teaching; suitable to teach or instruct.</p>

<b>Cultural Diffusion</b>	<p>1. Action and effect of spreading or extend culture. (3)</p> <p>2. Function that extends the manifestations of art and culture to the community in general, through a variety of mechanisms such as the classes of particular topics, theater plays, art exhibitions, film clubs, festivals, poetry competitions open to the public and conferences. (4)</p>
<b>Discipline</b>	<p>1. Science or set of course taught in schools.</p> <p>2. Subject or group of subjects in the same field of knowledge or that constitute a coherent curriculum. (3)</p>
<b>Curriculum Design Professor</b>	<p>Action to develop and plan a curriculum. (3)</p> <p>It particularly applies to the personnel involved in teaching. Synonym: teacher, lecturer, instructor. (3)</p> <p>Facilitator in distance educational model.</p>
<b>Doctor Ph. D.)</b>	<p>Academic degree involving the completion a graduate program and having presented and approved a doctoral thesis. (3)</p>
<b>Doctorate</b>	<p>Training period, which culminates with the obtention of the PH. D. degree. Includes the completion of a post-graduate program, as well as conducting original research that will take the form of a doctoral thesis. (3)</p>
<b>Distance Education</b>	<p>1. Distance education. (3)</p> <p>2. Mode of education developed mainly in a non-face-to-face, and, therefore, it involves the use of means capable of reducing, or even eliminating the direct personal contact (classroom) between students and teachers. Sometimes the abbreviation ODL (open and distance learning) is used to refer to this type of educational method. (1)</p> <p>3. Transmission of knowledge through various means, both of communication and of computers, in their various combinations, to offer more flexible educational models in time and space. The essential feature of distance education is the separation of teacher and learner, both in space and/or time. (4)</p>
<b>Continuing Education</b>	<p>It is usually understood as adult education once the initial formative stage, and it is related to the life-long learning. (1)</p> <p>2. Modality through which the institutions favor the training, updating, personal and professional certification of individuals and of the community, through numerous activities such as courses, seminars, workshops, diploma courses, and professional certifications. Continuing education programs must be structured considering the needs of training and updating of the different sectors and clients and be taught by instructors in accordance with the theme and objectives of the programs. (4)</p>
<b>Nontraditional Education</b>	<p>Open Education. (3)</p>
<b>Non-face-to-face education</b>	<p>Distance education. (3)</p>
<b>Semi face-to-face education</b>	<p>Mixed modality face-to-face and non-face-to-face education. (3)</p>
<b>Higher Education</b>	<p>1. Level or type of education that has as previous level high school (or preparatory school); and comprises studies of higher technical degree or associate professional, undergraduate and graduate studies. (3)</p>

	<p>2. The third level of the educational system articulated, usually in two cycles or levels (undergraduate and graduate students). Higher education is carried out in higher education institutions (HEI), a generic term that includes various types of organizations, of which the best known and most frequent is the university.(1)</p>
<b>Technological education</b>	Teaching of technical skills and knowledge; it embraces, at various educational levels, from job training to training for the professional practice in the field of agriculture, marine, industrial and services. (3)
<b>Trans-national education</b>	Teaching that takes place between institutions of higher education in several countries, on-campus or distance (usually through electronic means). The objective is usually to offer some lessons that transcend the culture of a one country only, so that the student has a chance to experiment with varied procedures, contents and teaching and complementary perspectives. (1)
<b>Virtual Education</b>	Teaching and learning that is primarily done through electronic media (Internet, TV...) (1)
<b>Effectiveness</b>	<p>1. Capacity to achieve a goal or a purpose. (3)</p> <p>2. Ability to achieve quality results, regardless of the means used, in accordance with the goals and objectives, and with the defined quality standards. It can also be understood as the social value of the product, the result, (first of all, in this case, the educational result), depending on the current cultural, political or economic models. (1)</p> <p>3. Capacity to attain the goals and objectives that are programmed with the resources available and in a given time. (7)</p> <p>4. Effective is that which achieves things, produces the effects or provides the services to which it is intended. An educational program will be effective to the extent that the students achieve the objectives (competencies: values, attitudes, knowledge, skills) previously established in such a program. (8)</p>
<b>Efficiency</b>	<p>1. Extent to which a person, an organization or a process are fully capable of performing a role. (3)</p> <p>2. Compliance of the goals and objectives programmed with the minimum of available resources, making the most out of them. (7)</p> <p>3. It relates to the optimal use of the resources of all kinds available. It is an important criterion, but subject to the effectiveness and relevance of the academic program. (8)</p>
<b>Graduation rate.</b>	<p>This is a measure of the ability of an educational center to ensure that their students finish their degree. (3)</p> <p>2. It is the percentage relationship resulting from dividing the number of graduates of a given educational level, by the number of new students who entered the first term. (7)</p>
<b>EGEL-CENEVAL</b>	General examinations of the bachelor degree applied by the National Center for the Evaluation of Higher Education
<b>Graduant</b>	Person who holds a certificate of completion of studies of a program, but still do not have the corresponding diploma or title. (3)
<b>Completion</b>	Action of completing studies in an education center. Number of students who complete their studies. (3)
<b>Budget execution</b>	Use and application of the financial resources of a public institution from its budget of expenditures for a given period. (3)

<b>Distance education</b>	Mode of teaching which does not without require the presence of the student in the institution's premises, and that he uses means of remote communication between students and their teachers. Synonym: non-face-to-face education. (3)
<b>Open Education</b>	Modality of teaching that allows to accommodate different paces of learning for students with various possibilities of displacement and schedules for their studies; it often contain characteristics of the distance modality. (3)
<b>Continuing Education</b>	Modality of education that is offered to a person during their professional practice or labor to update their knowledge in matters concerning their profession or trade. (3)
<b>Traditional face-to-face education</b>	Face-to-face teaching modality that is taught to students in groups or individually, within the premises of an educational center, with timetables and schedules of studies common to all students and as part of an educational program. (3)
<b>Formal Education</b>	Education given at an education institution to students duly enrolled in an educational program accredited or with official recognition of validity of studies; it can be traditional or open, and face-to-face or at a distance. (3)
<b>Mixed education</b>	Modality of education that combines aspects of the traditional, open and distance learning modalities to accommodate different learning rhythms and to students with various possibilities of displacement and schedules for their studies. (3)
<b>Non face-to-face education</b>	<b>Distance education.</b>
<b>Face-to-face education</b>	Modality of education that is taught on a daily basis to students in person, in groups or individually, within the premises of an education center and as part of an educational program. (3)
<b>Equity</b>	1. The spirit to give to each what they deserves. (9) 2. Equity is most important in pedagogical in sense, which attends to the different ways of learning to which people can have access to, and implements a number of methods and a variety of instructional strategies. (8)
<b>School</b>	Entities which do not grant the degrees of Master or Doctorate, but only BA degrees. (3)
<b>SPECIALTY</b>	Graduate level studies whose aim is to deepen in a specific area of knowledge or professional practice; the immediate previous level is BA degree. They usually have duration of one year, except in areas such as medicine, where they can last for several years. (3)
<b>Standards</b>	The Standards are the desirable elements of quantitative reference for each indicator, previously established by CONAIC and that will serve to be compared with the results obtained on evaluating the academic program (2)
<b>Academic structure</b>	Manner in which academic entities are organized in an educational institution. (3)
<b>Departmental structure</b>	Mode of academic structure in which the entities, usually called departments, are organized around specific science or disciplines; in this structure the educational programs are attended by professors

<b>Student</b>	from various departments in a matrix operational scheme. (3)
<b>Postgraduate studies</b>	Person taking courses, in this case, at higher levels. Level of education whose immediate precedent is Bachelor's degree; it has duration of between one and five years; this includes the specialty studies, master's and doctoral degrees. (3)
<b>Evaluation</b>	1. Action and effect of evaluating. (3) 2. It is the process of comparing certain attributes of an educational program, an institutional function or an institution of higher education with regard to standards and which are derived from value judgments. 3. Process for determining the value of something and making a diagnosis, analyzing its components, functions, processes, and results for possible changes for improvement. Quality agencies tend to divide their time and activities in two related tasks: evaluation and accreditation. Evaluation is an analysis study of the institution or program that includes the systematic collection of data and statistics relating to the quality of the same. The assessment for accreditation must be permanent or continuous (also known as a follow-up evaluation), and its results must serve to reform and improve the curriculum and the institution. The first stage is the diagnostic evaluation to determine the state of the program or institution at the start of a process of evaluation.(1)
<b>Evaluation of higher education</b>	1. Evaluation, through the analysis of quantitative and qualitative information, the state or situation of an institution of higher education, or the set of institutions of that level in a State, region or the country as a whole.(3) 2. It includes the problems posed to some area of higher education, pointing out obstacles and possible actions to overcome them.(3)
<b>Evaluation of Learning</b>	To evaluate through certain tests what has been learned by a student in an academic subject.(3)
<b>External Evaluation</b>	Also called peer evaluation, it may be made on an institution or a program. It normally follows the internal evaluation or self-evaluation. It usually consist of two stages: (a) revision of the documentation provided by the institution; and (b) a visit by a team of peers that ends up with a written report and recommendations. (1)
<b>Internal evaluation</b>	It Is the one evaluation performed by an institution or program from within the institution. (1)
<b>Evaluation with accreditation purposes</b>	When an evaluation is carried out with a purpose of accreditation, it must conform to the criteria and standards established by the accreditation agency or body. (1)
<b>Evaluator</b>	Person or entity that participates in evaluation activities, usually a member of an evaluation panel. It is normally not an expert, but a prestigious academic accredited in their subject area of competency.(1)
<b>Evidence</b>	Fact that proves the certainty of something. (3)
<b>Exam</b>	Test or evaluation made to a person to demonstrate proficiency in a subject.
<b>Services outreach</b>	Set of actions of community service performed by an institution of higher education, through its academic units, in order to extend the benefits of the resources and knowledge that they have produced or

	have access to: services and artistic, promotion and assistance services for community development. (3)
<b>University outreach</b>	Outreach refers to the set of activities of the institution of higher education through which it distributes and disseminates the knowledge and culture in the community or among the population. (1)
<b>Faculty</b>	Entities which where students take courses the degrees of Master or Doctorate, but also BA degrees. (3)
<b>Facilitators</b>	Professors in the classroom educational model and facilitators in the non-face-to-face educational model.
<b>Source of Income</b>	Origin of the quantities an educational institution, an organization, a State or a company regularly receives. (3)
<b>Academic function</b>	Action or service of institutions of higher education and their professors.
<b>Instrumental functions</b>	In an educational institution, the administrative activities, policy and planning support to the substantive functions. (3)
<b>Substantive functions</b>	In an educational institution, the activities of teaching, research and dissemination and preservation of culture. (3)
<b>Guarantee of quality</b>	Manner to insure that a program or educational institution is suitable for its purposes. (1)
<b>Generation of knowledge</b>	Action and effect of producing new knowledge through research, investigation, synthesis or analysis. (3)
<b>Innovative generation or innovative application of knowledge (GAK)</b>	Activity on the part the full-time professors that consists in the development and application of new or relevant knowledge in a field or discipline. Research is the most common method, but not the only one to carry out the activities of GAK. (3)
<b>Academic degree Skills</b>	The name of the titles of certain studies. Instrumental capabilities both generic and specific such as reading, writing, speaking in public, information technology, mathematics. (1) Skills are related to the professional profiles or discharge of the programs of study.
<b>Hour-week</b>	The unit of measure for the teaching work in the educational programs and curriculum; equivalent to one hour of class a week. (3)
<b>Hour-week-year</b>	Equivalent to one hour per week for an entire school year, that is to say, for approximately 30 weeks. (3)
<b>IDEL</b>	Descriptive code of the ANUIES typological profile: it corresponds to an institution focused exclusively or predominantly to the teaching up to the bachelor's degree level. (3)
<b>IDILD</b>	Descriptive code of the ANUIES typological profile: it corresponds to an institution focused predominantly to the education from bachelor's degree do doctorate level. (3)
<b>IDILM</b>	Descriptive code of the ANUIES typological profile: it corresponds to an institution focused exclusively or predominantly to the education at BA and Master´s level and research is very important. (3)
<b>IDLM</b>	Descriptive code of the ANUIES typological profile: it corresponds to an institution focused exclusively or predominantly to the teaching at BA and Master's level. (3)
<b>IDUT</b>	Descriptive code of the ANUIES typological profile: it corresponds to an institution focused exclusively or predominantly to the teaching at

<b>IIDP</b>	higher university technical level or associated professional. (3) Descriptive code of the ANUIES typological profile: it corresponds to an institution focused exclusively or predominantly to the education at BA postgraduate level giving great importance to research. (3)
<b>Suitability</b>	Ability, capacity, skill to do something: The academic ability of teachers and researchers, if this is the case.
<b>Incorporation of studies at the National Education System Indicator</b>	Administrative act by which an educational program becomes part of the National Education System and acquires official validity throughout the Republic. (3)  1. That indicates or serves to indicate. (3) 2. Statements describing the quantitative and/or qualitative indicators that are analyzed in the criteria through the quality of specific aspects of the academic program are reviewed. (2) 3. Indicators can be quantitative (numerically measurable) and qualitative. An indicator does not always have to be a numeric data type. (1) 4. Qualitative or quantitative parameter to measure to what extent are achieved the objectives set out earlier in relation to the different criteria to be evaluated with respect to the activities referred to in the categories....(Each criterion can be evaluated with one or several associated indicators) (6).
<b>Monthly report of Accreditations</b>	Document containing the information relating to the activity in the field of accreditation of the AB.
<b>Income for services</b>	Income of an institution generated for the services it lends such as: educational programs, courses, conferences, seminars or congresses; procedures for students; research projects and consulting; leasing of facilities, among others. They are part of the revenue of the institution. (3)
<b>Own income.</b>	Income that an institution of higher education obtains for the services it provides, through donations from private individuals, for tuition fees and exams, for organization of academic events or by exploitation of their heritage. (3)
<b>Institution</b>	Entity founded to play a role in the public interest such as education. (3)
<b>Higher Education Institutions (HEI)</b>	Generic term that includes various types of organizations of organizations, of which the best known and most frequent is the university.(1) Integrated center of higher education by the faculties and schools that offer undergraduate, master's and doctoral programs, supported by the State. An institution supports its operation with human, material and financial resources. (3)
<b>Institutional Institute of Technology</b>	Pertaining or related to an educational institution or institutions. (3) Public institution of higher education dedicated to the teaching of engineering and technologies.(3)
<b>Interdisciplinary</b>	That encompasses several disciplines or implies the intervention of several of them. (3)
<b>Academic exchange.</b>	See mobility.
<b>Internationalization</b>	Process that develops and/or implements and maintains policies and

<b>of higher education</b>	programs that integrate the international, intercultural or global dimension in the purposes, functions, or in the form of higher education. (3)
<b>Applied research</b>	Research which has as a purpose is to broaden scientific knowledge in view of its practical application. (3)
<b>Basic research</b>	Research intended to generate new scientific knowledge, without pursuing, in principle, a practical application. (3)
<b>Educational Research</b>	Set of programs dedicated to supporting the teaching-learning processes. Usually, these programs are conducted by the professors themselves and have, among other purposes, to contribute to the permanent update of the contents of the courses offered, as reflected in the respective descriptive letters and to improving the quality of teaching. (4)
<b>Researcher</b>	Post or appointment of a person dedicated to research in an institute or organism. (3)
<b>To do research</b>	To study or work in a field of knowledge to increase knowledge on a certain subject.(3)
<b>Value Judgment</b>	Appreciation of the committee of peers with respect to content, features or performance of a given criterion being evaluated. (6)
<b>Academic day</b>	Applies to days of classes or non-fest day. (3)
<b>Organic Law</b>	The legal ordinance issued by the Congress of the Union or of a state through which it creates a public university and sets out its aims, functions, legal personality, structure and organization, rights and obligations. (3)
<b>Bachelor's degree</b>	Degree or title obtained in programs of four to six years after high school. (3)
<b>Line of innovative application of knowledge</b>	Subject or practical problem that marks the course of a series of innovative applications of knowledge oriented to address or solve an issue. (3)
<b>Line of generation of knowledge</b>	Subject or intellectual problem that marks the course of a series of works of generation of knowledge. (3)
<b>Line of research</b>	Subject, issue or scientific problem that marks the course of a series of works of generation of knowledge. (3)
<b>Master's degree</b>	Degree or title obtained in programs of two to three years after the bachelor's degree. (3)
<b>Enrollment</b>	Number of students enrolled in an educational institution. (3)
<b>Improvement</b>	Increase in the quality of an institution, program or teaching, research or management activity. Normally, in contrast with previously established criteria or standards to achieve higher levels of quality. (1)
<b>Professional Labor Market</b>	Offer of employment for professionals of a certain type, and demand of employment in a given time and place. (3)
<b>Meta-evaluation</b>	Evaluation of evaluation Assessment on criteria, standards and indicators to analyze the quality of institutions or programs, or on the operation of the accrediting agencies or bodies. (1)
<b>Method</b>	An orderly way of to do a certain thing, in particular, to teach or learn something. (3)
<b>Mission</b>	Work or role that a person or a group assumes for the benefit of some individual or group (3)
<b>Modality</b>	1. Specific form of the delivery of an educational service, in terms of

	its procedures and teaching aids. (4)
<b>Educational modality</b>	This is the first great division of the National Education System that indicates the way in which education is provided; to do this, it is divided into two: face-to-face and non-face-to-face, and there is a third in that combines the previous two, which is called mixed modality. (7)
<b>Education Modality</b>	1. Face-to-face education (4) 2. Set of human, physical and technological resources, intended to carry out an educational process according to a given curriculum, within a school, subject to a school calendar, and with rigid schedules, under the direction of a teacher, who carries out the programs of the subjects or areas of knowledge to the learning pace of most of the students in the class or school group. The population served in this modality is constituted mainly by a population between five to 24 years of age. In order to enter to each of the levels, the applicants must have the required age and preparation. (7)
<b>Non face-to-face modality</b>	1. Open Education. (4) 2. Education organized under a plan and in response to a series of objectives which are carried out without the need to attend a school or classroom. It is not subject to rigid schedules or calendars nor requires the presence of a teacher. It is dynamic, flexible and adaptable to the individual differences of the students, because each one can learn according to their learning pace or personal interest. It allows a flexible process of accreditation. (7)
<b>Module</b>	Element that can be combined with others with which it forms a set of elements. (3)
<b>Mobility</b>	Possibility or action of students, teachers or administrative and services staff to spend a certain period of time studying or working at another institution of higher education within the country or abroad. (1)
<b>Multidisciplinary</b>	Set of knowledge belonging to various disciplines that have not been structured to form a new discipline. (3)
<b>Multidisciplinary</b>	1. Relevant to multiple disciplines or subjects. (3) 2. Approach applied to a problem of knowledge starting from the coincidences or confluences methodological or content between various disciplines. (7)
<b>Educational Level</b>	1. Each of the stages in which studies of the educational system are divided (3) 2. Traditionally, higher education is divided into two cycles or levels: undergraduate and graduate. In some countries, it include three cycles: undergraduate, graduate post-graduate. The name of the titles or certificates conferred upon completion of each cycle is variable, depending on the system of education, as well as denomination sometimes used to refer to certificates corresponding to a different cycle. (1)
<b>Regulations</b>	Set of rules applicable to a subject or activity. (3)
<b>Editorial Work</b>	Set of books, magazines and other publications published by an organization or institution. (3)
<b>Organization</b>	Corporation, institution, company or group of people made up of

	parts that perform specific functions in order to achieve a particular purpose. (3)
<b>Accreditation Body</b>	These are national or international organizations recognized by the COPAES through official agreement, whose aim is the implementation of the process of accreditation of academic programs or HEI, and as a result, the granting or refusal of accreditation. (2)
<b>Educational Guidance</b>	Action or actions that help to guide the student or applicant in the choice of the educational option that suits them best. (3)
<b>Career guidance.</b>	Co-curricular activities (conferences, workshops, seminars, conferences, participation in associations, etc.) offered to students in advanced semesters to expand their knowledge, skills and attitudes required to perform better in the labor market. (2)
<b>Peer</b>	Colleagues or professors of the same area of knowledge. External evaluations are carried out by peer evaluators. (1)
<b>COPAES' Register of evaluators</b>	Bank of peers that can be contacted for the evaluation with purposes of accreditation of the quality of an institution or academic program. (1)
<b>Profile of the graduate</b>	In an educational program, set of knowledge, skills and other attributes that in principle the student must acquire to graduate or obtain their title in said program. (3)
<b>Academic Staff</b>	In the centers of higher education, the individual performing devoted to, generation of knowledge, innovative application of knowledge and dissemination and preservation of culture. (3) Personnel performing functions of teaching and research, as well as dissemination and extension of the culture. This is without regarding the program is face-to-face, semi face-to-face or distance.
<b>Definitive Academic staff</b>	Academic staff who developed his professional career within institutions of education and research; must be employed full-time or part-time and usually has the appointment of Professor, researcher or professor-researcher. (3)
<b>Part-time academic staff</b>	Academic staff employed full-time, usually with appointment as professor, researcher or professor-researcher; it implies a commitment of 20 hours/week, although in some institutions this might be different. (3)
<b>Full-time academic staff</b>	Academic staff employed full-time, usually with appointment as professor, researcher or professor-researcher; it implies a commitment of 45 hours/week, although in some institutions, it can be of up to 35 hours/week. (3)
<b>Academic staff, by the hour or course</b>	Is the academic staff hired to teach certain subjects or subjects which means the dedication of a certain number of hours/week. (3)
<b>Academic-administrative staff</b>	At centers of higher education, staff can have managerial work, organization and evaluation of the academic functions of the institution. (3)
<b>Administrative staff</b>	At centers of higher education, staff in charge of managerial work, organization and evaluation, and operation of tasks supporting academic functions of the institution. (3)
<b>Teaching staff</b>	1. Staff responsible for teaching in an institution of higher education; includes the academic staff with the various types of contract. (3) 2. Group of persons officially enabled, in full or in part, to guide and

	direct the learning experience of students, whatever their qualifications or the mode of providing education: face-to-face and/or distance. (4)
<b>Ancillary Staff</b>	Staff performing specialized activities to support the activities of an institution of higher education. This includes librarians, laboratory technicians, doctors, social workers, counselors, mechanical and sketchers, among others. (3)
<b>Services staff</b>	Staff responsible for the operation and maintenance of an educational center. Includes the janitorial staff, landscaping, transportation, and security. (2)
<b>Relevance</b>	<p>1. It is the main criterion evaluate the quality of an educational program, since the effectiveness, equity and efficiency make sense to the extent that the objectives, contents, teaching methods and procedures of the program are relevant, that is to say, they are adequate, consistent, relevant and timely to meet the needs and demands of its cultural, social and economic environment, as well as to meet the various characteristics of the students. (8)</p> <p>2. Consistency of the academic nature of higher education with the designs and educational practices, research and outreach of institutions, programs or projects. (4)</p> <p>3. Especially of plans and programs, instructional strategies, procedures and means of evaluation of learning, of the rules of certification and graduation, as well as the physical and technological infrastructure, among others.) (5)</p>
<b>Plan Curriculum</b>	<p>Systematic model developed to lead and direct actions. (1)</p> <p>An ordered set of subjects, practices, studies and other teaching and learning activities that determine the contents of an educational program and that must be completed to obtain, in a center of higher education, the title or grade.</p> <p>The curriculum includes the rules and entry requirements, permanence and graduation of students. (3)</p>
<b>Improvement plan</b>	Document measures are stated to obtain accreditation, or to improve the aspects identified in the evaluation process. (1)
<b>Strategic Plan</b>	It is the long-term planning of an institution of higher education, on activities, expansion of resources and infrastructure. (1)
<b>Planning</b>	One of the principles for the eligibility of accreditation is that there has to be a planning process in the Higher Education Institution and evaluate its performance. (3)
<b>Post-grade</b>	Any of the posterior grades to the bachelor's degree conferred by an institution of higher education or of the programs of study; this includes the degrees of specialization or specialty, master's and doctoral degrees. (3)
<b>Profession</b>	Employment, faculty or trade that a person has and exercises with the right to remuneration. (3)
<b>Professional Professionalize</b>	<p>The person exercising a profession. (3)</p> <p>Convert into profession an activity carried out previously for pleasure. (3)</p>
<b>Associate Professor</b>	Category of professor in many centers of higher education; it is superior to the category of assistant professor and inferior to that

	Senior professor. (3)
<b>Subject professor</b>	Type of teacher, hired to teach certain subject or subjects. Synonym: Part-time professor, hourly professor. (3)
<b>Senior Professor</b>	Professor who develops his professional career in the academic environment; performs functions of teaching, tutoring to students, generation and innovative application of knowledge, academic management and dissemination of culture. (3)
<b>Half-time professor</b>	Professor hired to develop the academic functions for 20 hours/week. (3)
<b>Full-time professor</b>	Professor hired to develop academic functions with a time of dedication of between 40 and 35 hours/week. (3)
<b>Professor</b>	Person who teaches a certain discipline; at institutions of higher education professor, when senior, devotes himself to the rest of the academic functions. (3) Professors in the face-to-face educational model and facilitators in the non-face-to-face educational model.
<b>Academic Program</b>	Program offered by an institution of higher education in order to educate and empower the people who attend to exercise a certain professional activity either practice or academic; it is often identified by the name of the discipline or professional activity.
<b>Student Development Program</b>	Set of activities, procedures, policies, and resources designed to facilitate the integral education of students through a co-curricular learning environment and cultural, social, artistic, sporting, recreational, and exchange, programs that lead to their integration and development within the institution, as well as links with society. (3)
<b>Evaluable program</b>	An academic program that complies with the requirements of COPAES to be submitted to an evaluation for the purposes of accreditation.
<b>Educational Program</b>	Program offered by an institution of higher education in order to educate and empower the people who attend to exercise a certain professional activity either practice or academic; it is often identified by the name of the discipline or professional activity.
<b>PROMEP Promotion</b>	Program for the Improvement of the Teaching Staff. (3)
<b>Continuing education project</b>	Labor, economic, social or cultural advancement. (3)
<b>Research Project</b>	Set of educational activities of the centers of higher education aimed at updating, formation and training of people. (3) Unit of institutional work or operation that links resources, activities and tasks for a given period of time, in accordance with goals, policies and plans related to the activity of research and which must be endorsed by an academic-research unit. The research project has a defined conceptual epistemological background, theoretical developments and institutional practices. (4)
<b>Project of professional practices (internship)</b>	A set of activities for the implementation of curricular value with knowledge where students are to acquire direct contact with the work environment. (3)
<b>Public</b>	Pertaining to the State, under its management or control. (3)
<b>Re-accreditation</b>	Renewal of the accreditation. When accreditation expires or when there have been no substantive changes in the organization or

	<p>status, institutions or programs are to be re-accredited, as long as certain requirements are met. (1)</p>
<b>Recognition of certificate, diploma or degree</b>	<p>Acceptance by the competent authorities of a Contracting State and the granting to the holders of such certificates, diplomas or degrees of rights to those who possess a similar certificate, diploma or degree. (4)</p>
<b>Recognition of official validity of Studies (RVOE)</b>	<p>Administrative act by SEP (Department of Public Education) which allows a particular, when it meets the requirements set forth for the purpose, to provide a higher education program. The recognition of official validity of a study program involves its incorporation into the national education system and therefore its validity throughout the territory of the Republic. (3)</p>
<b>University Network</b>	<p>Multilateral Agreement among institutions of higher education that may have already concluded bilateral agreements with other universities. (4)</p>
<b>Fail rate (educational indicator)</b>	<p>It is the number or percentage of students who have not obtained the necessary knowledge established in study plans and programs of any grade or course and that, therefore, the need to repeat the grade level or course. This indicator allows us to have a reference of the efficiency of the educational process (utilization), and induces to seek contextual references (basically, social and economic) of the students who are part of this fail rate and probable flaws in the teaching-learning process. (7)</p>
<b>Recruitment</b>	<p>Action and effect of gathering people together for a particular purpose (9).</p>
<b>External Evaluation Report Results</b>	<p>Document resulting from the evaluation carried out by external peer evaluators in the visit to the HEI. Sometimes referred to as achievements, refers to the productivity of an institution or a program of higher education. They are measured primarily by training students, at the end of an academic course, or a complete program. They can also be measured by the type and level of work the students obtain as graduates. Accreditation standards are associated more with what students know, learn and are able to do, or with what is considered added value, i.e. the difference between the initial knowledge and terminal knowledge. To measure the achievements one calculates the summation of the added values of a cohort of students. (1)</p>
<b>Validation of titles</b>	<p>Act through which a university, previously authorized by the State, recognizes or validates a title awarded by another institution of higher education in a program offered by the latter, subject to compliance with the requirements established by the institution to which one requests the validation. (4)</p>
<b>Backwardness.</b>	<p>In higher education, extension of the studies beyond what is formally established for each school or program. This phenomenon is particularly associated to three major causes: repetition, the interruption of studies and the assumption of academic loads lower than those provided for in the curriculum. Synonym: Lagging. (4)</p>
<b>Follow-up</b>	<p>Continuous attention to a matter that develops in time to observe progress and detect possible deviations from desired or planned</p>

	objectives. (3)
<b>Follow-up of graduates.</b>	Observation and recording of the destination and activities of the Alumni of an educational institution with the purpose of evaluating the empowerment and instruction taught provided by the institution. (3)
<b>Seminar</b>	Collective academic activity in which a small number of students, professors or researchers present and discuss scientific, artistic or humanistic issues of common interest. (3)
<b>Social Service</b>	Extracurricular activity of the students in a higher education institution consisting in the provision of their services to the community in any matter related to the educational program of temporary and mandatory nature; and that is a prerequisite for the title or degree. (3)
<b>National Education System</b>	Set of educational services provided by the State, its decentralized agencies and individuals with permission or recognition of official validity of studies. It includes the elementary, middle, and higher, types in its face-to-face and non-face-to-face education modalities (3)
<b>Sufficiency</b>	Capacity, ability. (7)  Sufficiency of equipment and access to support services to students and academics, among others. (5)
<b>Workshop</b>	Place where manual activity is done. Practical activity in which students learn and develop some creative ability. (3)
<b>Rate</b>	Relationship or ratio between two magnitudes.
<b>Average annual drop rate</b>	Rate of students who abandon their studies in the times established as the duration of the program in years. It is calculated as the complement of the graduate rate. (4)
<b>Graduation Rate</b>	Proportion of the number of students who graduate in a certain school year and the number of students who entered prior to the program. (4)
<b>Fail rate</b>	It is the percentage of students who do not accredit the knowledge established in the course of any grade or course. In superior higher education this indicator refers to Student students who finish their studies corresponding to the school term without having passed some subjects (2)
<b>Retention Rate</b>	Proportion as to an educational program and a given year, fraction of the first entry students in a given year that follow as active students one year later. (4)
<b>Diploma or graduation rate</b>	As to an educational program, Proportion of the number of students who graduate in a certain school year and the number of students who entered prior to the program. (4)
<b>Higher University Technical Degree</b>	Higher education studies that lead to the corresponding grade; they have as immediate antecedent the High School (Preparatory School) and lasts two years. (3)
<b>Technology</b>	Set of technical knowledge, instruments and procedures applied to the development of a productive activity; particularly, of goods or services. (3)
<b>Information and</b>	An expression that encompasses all the technologies that are used

<b>Communication Technologies (ICT)</b>	in computing and the Internet. (1) It is the set of processes and products of technologies of hardware and software, and communication technologies, which together are responsible for processing, storing and transmitting digital information. They are characterized by their immediacy, innovation, interactivity, interconnection, accessibility, etc. (4)
<b>Tertiary Education</b>	It refers to higher education, as a continuation of the primary and secondary education (high school). (1)
<b>Graduate</b>	1. Person who holds an academic degree. (3) 2. Person who obtains a higher education degree. It can refer to any level or degree: bachelor's, master's, doctoral degree. (1)
<b>Transfer of knowledge</b>	Process by which the innovation in research within an institution of higher education is transferred to the society. It characterizes research productivity in the form of application, patents, discoveries, awards, production of consumer goods. (1)
<b>Transparency</b>	Public access to comprehensive, accurate and clear information of an institution of higher education or an accreditation agency or body. (1)
<b>School pathway</b>	The academic process experienced by the students along the educational institution. It starts when they enter the institution, continues throughout their stay and ends when it meets all the requirements laid down in the administrative academic plan and curriculum. Depending on the type of school pathway a student may qualify as a repeater, left behind, regular and irregular. (4)
<b>Common core</b>	Set of subjects, courses or other teaching-learning units that are common to two or more related programs or for the same area of study and which are usually scheduled at the beginning of the study plans. (3)
<b>Tutor</b>	Professional who attends a student and becomes responsible for the process of curricular learning and advancement of one or several students, based on adequate methodological, pedagogical and psychological supervision and guidance. (4)
<b>Tutoring</b>	1. Time spent by the professor in guiding and advising to students who are studying a subject. (3) 2. Action to accompany and supervise the student's performance, providing methodological support and guidance that will facilitate their progress in the curriculum. (4)
<b>Autonomous University</b>	Public institution of higher education to which the State in its organic law has granted autonomy to govern itself for matters or certain matters of its own administration. (3)
<b>Assess Engagement</b>	Attach more or less value to a person or a thing. (3) 1. A set of activities to strengthen the collaboration between an institution of higher education with productive enterprises and governmental organizations. (3) 2. Substantive function of a Higher Education Institution (HEI), through which it relates to other HEI s and the social, public and private sectors at the local, regional, national and international levels in order to extend and disseminate the services it provides. (7)
<b>Virtual</b>	It refers to an educational modality in which distance teaching takes place mainly through the Internet, also called <i>on line</i> . (1)

**Vision**

It represents the scenario highly desired by the organization or entity that would like to achieve in a long term period. (7)

**Sources:**

1. RIACES.- Glossary of Terms.  
Http://saidem.org.ar/docs/Glosario/RIACES.
2. COPAES.- Marco de Referencia del 2012.
3. COPAES – Marco General de Referencia para los Procesos de Acreditación de Progrmas Académicos del Tipo Superior, Versión 3.0, 2016
4. Subsecretaria de Educación Superior de la SEP.- Glosario de Términos.  
b) <http://ses2.sep.gob.mx/cgi-bin/glosario/glsr.pl?busca=A>  
c) [http://ses4.sep.gob.mx/wb/ses/ses\\_glosario](http://ses4.sep.gob.mx/wb/ses/ses_glosario).  
d) [dsia.uv.mx/Cuestionario911/Material\\_apoyo/Glosario%20911.pdf](http://dsia.uv.mx/Cuestionario911/Material_apoyo/Glosario%20911.pdf)
4. IESALC-UNESCO.- Glosario de Términos.  
<http://es.scribd.com/doc/57154381/Glosario-Sobre-Educacion-Superior-Unesco>
5. COCOES.- Propuestas y Recomendaciones.
6. CONACYT.- Glosario de términos del PNPC para programas de posgrado escolarizados.
7. SEP.- Glosario de Educación Superior.
8. ANUIES.- Glosario de Términos.
9. REAL ACADEMIA ESPAÑOLA.- Diccionario de la Lengua Española.