



Rubric for Evaluators



Rubric for evaluators

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This rubric has the registry of intellectual property for CACEI.

Introduction

What is a rubric?

A rubric, or evaluation matrix, is a selection of those aspects that are required to be evaluated in the process of evaluation for accreditation along with descriptors arranged by levels of performance or quality for each of the aspects to be evaluated. A rubric consists of four elements:

- **Aspects of the program described in the indicators that are to be evaluated.**
- **A definition or description of the aspect to be evaluated, considering the standard defined in the Reference Framework of CACEI.**
- **A scale of values by which each question or indicator will be scored.**
- **The descriptors for each performance level.**

What is the purpose of this rubric?

The rubric developed aims to assist CACEI's evaluators during the review of the self-evaluation report, looking for having references to allow the process to be

valid and reliable. In the review of the self-evaluation, the evaluator must take into account all the inputs that accompany the response, i.e., are not only the answers and arguments expressed in it but the evidence submitted or observed in the *on-site visit*.

The **rubric** allows to:

- Identify strengths and weaknesses according to the defined standards for a quality program. *Detailed analysis of the evidence provides significant information on the aspects that are evaluated, their level of compliance with agreement or standards, and opportunities for improvement.*
- Facilitate academic discussion between the assessment team. *The evaluation process is an opportunity to reflect, share and contrasting points of view, expectations, and valuations, among the members of an evaluation team with standard references.*
- Optimize activities.
- Show various possibilities that facilitate the evaluation of an indicator. *The result obtained with the rubric is a good starting point to issue recommendations to the programs that will result in realistic and contextualized improvement plans.*

The **rubric** should not be...

Be considered only a list of collation. *Each result, by discrete, that is, must be carefully analyzed and the score assigned should be assigned considering the evidence presented and the standard expected .*

The assigned rating must emerge from a profound reflection academic.

Provide a quantitative score. *Interesting thing isn't rate, but discriminate what exists, what level of development and what is could be improved.*

Disadvantage the reflection on the implementation of the indicator. *The header is a first step, which facilitates the joint and group work with arguments solids.*

Establish rankings between different programs.

Invite complacency and lack of reflection. *The results must always be an invitation to the degree of compliance with reached.*

The **rubric** should not be:

- Considered only a checklist. *Each result, regardless of how discrete it is, must be carefully analyzed and the score assigned should be assigned considering the evidence presented and the standard expected. The assigned score must emerge from a profound academic reflection.*
- Providing a quantitative score. *The issue is not rating, but discriminate what exists, what level of development and what could be improved.*
- Discouraging the reflection on the achievement of the indicator. *The rubric is a first step in right direction, which facilitates team work with solid arguments.*
- Establishing rankings between various programs.
- An invitation to complacency and lack of reflection. *The results must always be an invitation to meet the goals established.*

How was this rubric designed?

The rubric was developed considering the expected results that must be identified in the programs under evaluation, in order to be considered to be of good quality, based on the six criteria established in the Reference Framework of 2018 (MR-2018), and standards agreed by the academic Committee of CACEI. The expected results must be supported on the evidence submitted by the Committee responsible for preparing the Self-evaluation report of the program.

The scale defined in the MR-2018 for the levels of compliance of an indicator was used in its design. These were described considering the evidence expected to be found in the Self-evaluation report.

An indicator is to be evaluated with two or more questions. The score assigned to the indicator should respond to the criteria of the comprehensive qualification defined by CACEI, considering the scores assigned to each question.

What scale is used?

This rubric uses two scales. The first applies to the indicator and the second for the guiding questions. The latter aims to aid in the justification of the first. The following is a description of the central concepts that are used:

The scale for assessing the indicators is based on the level of compliance, by in the Reference Framework 2018:

Not achieved: Applies when the program does not currently meet the indicator in any of the established terms.

Partially achieved: Applies when the program does not currently meet some of the terms of the indicator.

Achieved, but at risk of breaching during the duration of the accreditation: As its name implies, is applied when the program complies with the indicator currently, in all respects, but soon could not fulfill. It is essential in this case, identify the reasons why that risk is running in the context of the development of the program, either because the trends are adverse because there is with strategies to keep it, or because the strategies are inadequate or inappropriate, or some other similar reason.

Is achieved or exceeded: Applies when the program complies with the indicator in all respects and can ensure that they will continue during the duration of the accreditation.

The scale of the **guide questions** is specific for each one of them, depending on the topic. Its use and interpretation depend on the context and the presentation of the evidence of each indicator. However, it is possible to offer some general guidelines about the terminology used in them:

Adequate, sufficient, most or reasonable number: Applies to cases where the information provided reflected one impact enough in the quality of the program. It should not be construed to be 50% + 1, but when the 100% is not meet, but the margin missing not significantly affects the quality of the program. It should be assessed whether there are negative or positive trends to determine the level of risk in the program.

Formal process: Refers to a process approved institutionally, through any single or collegiate program or academic unit or institution if it affects the program.

When a process is not formalized, is in danger of disappearing in a change of management of the program or for other contingencies.

Systematic process: Refers to established processes operated periodically, with methods, schedule, dates, and responsible for defined. There are documented results of at least two previous periods. When a process is not systematic, there is a risk that it is not carried out complete or timely in the future.

Current: Refers to that the information is up-to-date.

Rubic for the criteria and indicators of the Reference Framework 2018

Criterion 1 academic staff

Indicator 1.1 Faculty profile	1	2	3	4
1. Factors considered are: 1) academic education, 2) diversity of academic education, 3) effective communication, 4) experience and competence in teaching, 5) research, 6) practice in engineering design, 7) productivity in research, technological, patents or similar developments, 8) participation in engineering chapters, professional associations, etc., 9) participation in extracurricular activities of the program, 10) participation in the analysis and updating of the program.	Not adequate	Some adequate	Adequate	Highly adequate
2. Is there a balance between academic staff, with regard to the permanence in the program and age?	No	This rating option is not valid for this question.	Yes, but with risk of breaching during the accreditation period.	Yes
Assessment of indicator 1.1	Not achieved	Partially achieved	Rating of 3 or more in question 1.1.1	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 1.2 Sufficient faculty	1	2	3	4
1. Does the PE have enough faculty to cover all areas of the curriculum, according to their characteristics and enrollment?	No	Two or more curriculum areas do not have enough faculty.	Yes, but some areas of the curriculum have high turnover of faculty.	Yes
2. Do faculty who teach in the PE have the competencies relevant to their appropriate	No	The number of faculty who demonstrate relevant skills is	Yes, most faculty show that they have the relevant skills,	Yes

<i>academic performance?</i>		insufficient for the curriculum.	or Yes, but some of them are temporary hires or can retire in the coming years.	
Assessment of the indicator 1.2	Not achieved	Partially achieved	Rating of 3 or more in questions 1.2.1 and 1.2.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 1.3 Balance of fundamental activities	1	2	3	4
<i>1. Full time faculty prepare a plan or program of their substantive activities for each period or cycle?</i>	No	Only a few faculty do it, or Most faculty do it, but not at all school periods.	Yes, most faculty does it at all school periods, or All faculty does it in the majority of the school periods.	Yes
<i>2. Does exist a procedure that allows verifying the substantive activities carried out by full-time faculty, and evaluates its results?</i>	Does not exist or it is not explained how the results of the fundamentals activities are evaluated.	Yes, but only allows to verify compliance and not the results of fundamentals activities.	Yes, but it is not institutionally approved and could disappear or weaken.	Yes
<i>3. How is evaluated the distribution of substantive activities for full-time faculty that participates in the program?</i>	Null or little balance in the distribution of fundamental activities.	Some Full Time Faculty (PTC) show balance in the distribution of their fundamental activities.	A reasonable number of the PTC shows balance in the distribution of their fundamental activities.	Yes, most of the PTC shows balance in the distribution of their fundamental activities.
<i>4. How do you evaluate the degree (level) of interaction between students and faculty?</i>	They only interact with students in classes.	In addition to classes, they interact with students in some other activities, or Some PTC interact in a number of activities.	In addition to classes, a reasonable number of the PTC interacts in the majority of other activities.	The majority of the PTC interacts in all activities.
<i>5. How do you evaluate the degree (level) of</i>	Some PTC conduct	Some PTC conduct counseling	A reasonable number of the	Most of the PTC do

<i>counseling and tutoring to students?</i>	counseling or tutoring.	and tutoring.	PTC carries out consulting and mentoring.	consulting and mentoring.
6. How do you evaluate the degree (level) of interaction between faculty with employers and practitioners of the profession?	The PTC do not interact with employers and practitioners.	Some PTC interact with employers and practitioners of the profession. or A reasonable number of PTC interacts with employers or practitioners.	A reasonable number of PTC interacts with employers and practitioners.	Most PTC interact with employers and practitioners.
7. As an overall, how it assessed the competence of faculty to support the achievement of the educational objectives of the PE?	Very inadequate	Inadequate	Adequate	Highly adequate
Assessment of the indicator 1.3	Not achieved	Partially achieved	Rating of 3 or more in questions 1.3.1, 1.3.4, 1.3.5 and 1.3.7	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 1.4 Evaluation and development of faculty	1	2	3	4
1. Is there a comprehensive system to evaluate and update the education of faculty?	No	There is only an evaluation system, or There is only a system to update their education.	Both systems exist, but they are not integrated.	Yes
2. Does the comprehensive assessment system includes the participation of: students, academic peers and authorities?	There is no system.	The system includes the participation of: * Only students, or * Only faculty, or * Only the authorities.	Includes the participation of students, plus: * faculty, or * authorities.	Yes
3. How do you evaluate the degree (level) of professional development of faculty assigned to the program?	Null	Only some faculty demonstrate professional development.	A reasonable number of faculty demonstrates professional development.	The majority of faculty demonstrates professional development.

4. How do you evaluate the degree (level) of pedagogical training of faculty participating in the program?	Null	Only some faculty show pedagogical training.	A reasonable number of faculty shows pedagogical training.	Most of the faculty shows pedagogical training.
5. How do you evaluate the degree (level) of disciplinary update of faculty participating in the program?	Null	Only some faculty show disciplinary update.	A reasonable number of faculty demonstrates disciplinary update.	The majority of faculty demonstrates disciplinary update.
6. The results of the evaluation of faculty are included in their program for development?	No	Only some of the results are included in the development program.	Most of the results is included in the development program.	Yes
7. Is faculty provided with feedback on their evaluation?	No	Only some faculty receive feedback, or A reasonable number of faculty receives feedback, but not on an ongoing basis.	A reasonable number of faculty receives feedback on an ongoing basis, or The majority of faculty receive feedback, but not on an ongoing basis.	Yes
8. Does the PE have policies and mechanisms aimed at faculty associated with the results of their evaluation?	No	There are policies, but not with mechanisms.	There are policies and mechanisms, but they are not associated with the results of the evaluation.	Yes
Assessment of the indicator 1.4	Not achieved	Partially achieved	Rating of 3 or more in questions 1.4.1, 1.4.3 and 1.4.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 1.5 Responsibility of faculty with the curriculum	1	2	3	4
1. There are instances integrated by faculty participating in the decision-making of all academic aspects of the curriculum?	No	There are some instances, but do not participate in the decision-making, or professors do not participate in them.	There are a reasonable number of instances with participation of faculty and most of these participates in decision-making.	Yes

<p>2. For the faculty instances, do records of meetings exist, and the matters dealt in the meetings and the decisions made of all relevant academic aspects of the curriculum?</p>	No	<p>There are records of some of the instances, or It has some records of most of the instances.</p>	<p>There are records of most of the instances and topics dealt in the meetings.</p> <p style="text-align: center;">Yes</p>	
<p>3. Is there proving documentation of the impact of the decisions of the faculty instances involved in the decisions of all relevant academic aspects of the curriculum?</p>	No	<p>There are some proving documents, and reflects the impact of the decisions, or There is a reasonable number of substantiating documents, but the impact of the decisions is not reflected in academic aspects of the program.</p>	<p>It has a reasonable number of substantiating documents, and if the impact of the decisions is reflected in academic aspects of PE. or It boasts most of the evidentiary documents, but only the impact of decisions is reflected in academic aspects of PE.</p> <p style="text-align: center;">Yes</p>	
<p>Assessment of the indicator 1.5</p>	Not achieved	Partially achieved	<p>Rating of 3 or more in questions 1.5.1 and 1.5.2</p>	
			<p>Achieved, but at risk of breaching during the duration of the accreditation</p>	<p>Is achieved or exceeded</p>

<p>Indicator 1.6 Selection, permanence and retention of faculty</p>	1	2	3	4
<p>1. Is there an institutional process transparent for the selection of faculty?</p>	No	<p>Yes, there is a process, it is applied, but it is not transparent.</p>	<p>Yes there is a process, it is transparent, but it is not widespread.</p>	Yes
<p>2. Does the selection process for faculty takes into</p>	No	<p>Yes, but only the academic</p>	<p>Yes, it takes into account</p>	<p>Yes, in a way</p>

consideration the academic background and the experience of the candidates?		training or just work experience is considered.	some degree of work experience and academic training, but it is not consistent with the needs of the curriculum.	consistent with the needs of the curriculum.
3. The process of selection of faculty considers carrying out an examination, a sample class or other similar test, with the participation of academic peers?	No	Yes, but only occasionally.	Yes, in most cases.	Yes
4. Is there an institutional program for the retention of faculty with good performance and good results in their assessments?	No	Yes there is a program, but it is not transparent.	Yes there is a program, it is transparent, but it is not widespread.	Yes
Assessment of the indicator 1.6	Not achieved	Partially achieved	Rating of 3 or more in question 1.6.1 and 1.6.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Criterion 2 Students

Indicator 2.1 Admission	1	2	3	4
1. Is there a promotional program focused on attracting students with the profile established for the program?	No	Yes, but it is sporadic.	Yes, although limited in coverage.	Yes
2. Is there a standard process for the selection of candidates taking into account the requirements established by the program?	No	Yes, but it does not follow the process established.	Yes, but the results are not analyzed in a standardized manner.	Yes
3. Is there a transparent, standardized and known process for the admission of students to the program?	No	Yes, but only one of the three characteristics (transparent, standardized and diffused) is meet.	Yes, but the impact of the analysis is not appended.	Yes

<i>4. Exists and operates a program of induction for students accepted into the program?</i>	No	Yes, but operates occasionally, or Yes, but students don't know.	Yes, it exists and operates most of the time. Some evidence of the level of satisfaction of students is appended.	Yes
Assessment of the indicator 2.1	Not achieved	Partially achieved	Rating of 3 or more in questions 2.1.1, 2.1.2, 2.1.3 and 2.1.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 2.2 Transfer credits and exchange studies	1	2	3	4
<i>1. Exists and operates a process for transferring credits, and the equivalence and recognition of credits earned at other institutions, programs or levels?</i>	No	There are some actions of transferring, equivalence and recognition of credits, but not as part of a process.	Yes, and it operates the majority of the time.	Yes
<i>2. Is the information on this process available to the stakeholders of the program?</i>	No	Yes, it is available but only sometimes.	Yes, most of the time is available.	Yes
Assessment of the indicator 2.2	Not achieved	Partially achieved	Rating of 3 or more in questions 2.2.1 and 2.2.	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 2.3 Promotion	1	2	3	4
<i>1. Exists monitoring and analysis of statistics and trends by generational cohort according to the program's rules, considering indices such as attrition, retention, dropout, and alike?</i>	No	Yes, but not for all the cohorts or Yes, but only includes the analysis of some indicators.	Yes, for most cohorts and indexes, but improvement strategies and the result of the implementation of these are not included.	Yes
<i>2. Are there any strategies to address the problems related to promotion and graduation rates?</i>	No	Yes, but they are not articulated, or	Yes, but do not include the analysis of results of implemented strategies.	Yes

		Yes, but they are not done routinely.		
Assessment of the indicator 2.3	Not achieved	Partially achieved	Rating of 3 or more in question 2.3.1 and 2.3.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 2.4 Counseling and mentoring	1	2	3	4
<i>1. Exists and operates a counselling and guidance program that supports students to improve promotion and graduation rates?</i>	No	Yes, but it operates only in some cases	Yes, and it operates in the majority of cases	Yes
<i>2. Exists and operates a program of academic guidance to support students in their advancement with the objective of reducing attrition rates of the program's courses?</i>	No	Yes, but it operates only in some cases.	Yes, and it operates in the majority of cases.	Yes
<i>3. Exists and operates a program of medical and psychological services that support students in their advance, aiming to improve the attrition rate?</i>	No	Yes, but it operates only in some cases.	Yes, and it operates in the majority of cases.	Yes
Assessment of the indicator 2.4	Not achieved	Partially achieved	Rating of 3 or more in questions 2.4.1, 2.4.2 and 2.4.3	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 2.5 Graduation	1	2	3	4
<i>1. Is there a transparent and well-known process that explains the requirements and the procedure for graduation?</i>	No	Yes, but it is not clear, or it is not widespread.	Yes, it is clear and is widespread, and takes advantage of the majority of	Yes

			the graduating options.	
2. Is there an analysis of the effectiveness of each graduation option?	No	Yes, but refers only to certain periods.	Yes, and refers to most periods.	Yes
Assessment of the indicator 2.5	Not achieved	Partially achieved	Rating of 3 or more in questions 2.5.1 and 2.5.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Criterion 3 Curriculum

Indicator 3.1 Stakeholders of the program	1	2	3	4
1. Have been identified and documented institutionally the stakeholders whose information is relevant for the continuous improvement of the program?	No	The stakeholders are identified, but their inclusion is not justified, or Some stakeholders are identified, and their inclusion is justified.	The majority of stakeholders are identified, but only the inclusion of some of them is justified, or All stakeholders are identified, but their inclusion is not justified.	Yes
2. From the identified stakeholders, which have participation?	None	Some stakeholders participate, and their participation is justified, or Most of the stakeholders participate, but their participation is not justified.	Most stakeholders participate, and their participation is justified.	All
3. Do the educational objectives of the program reflect the needs of stakeholders?	The stakeholders have not been identified.	The stakeholders have been identified, but their needs have not been identified.	The stakeholders and their needs have been identified, or The stakeholders have been identified, but the educational objectives do not reflect their	The stakeholders have been identified, and the educational objectives reflect their needs.

			needs.	
Assessment of the indicator 3.1	Not achieved	Partially achieved	Rating of 3 or more in questions 3.1.1, 3.1.2 and 3.1.3	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 3.2 Pertinence of the program	1	2	3	4
<i>1. Is there a systematic review process that incorporates the relevant information provided by the stakeholders of the program?</i>	No	There is a review process, but it is not systematic, or There is a review process, it incorporates information provided by some of the stakeholders, but it is not systematic.	There is a systematic review process, and it incorporates information provided by some of the stakeholders.	There is a systematic review process, and it incorporates information provided by the majority of stakeholders.
<i>2. The educational objectives of the program are well defined?</i>	The stakeholders have not been identified.	The stakeholders have been identified, but their needs have not been identified. or The educational objectives are not expressed in a precise manner.	The stakeholders and their needs have been identified, or The stakeholders have been identified, but the educational objectives do not reflect their needs.	Yes
<i>3. The educational objectives of the program are disseminated to the public?</i>	No	Yes, but only a few media are used or Yes, but in media of low accessibility to stakeholders.	Yes, in a reasonable and appropriate number of media.	Yes
<i>4. Do PE provide a formal and systematic process that allows to obtain and periodically analyze the opinion of graduates?</i>	No	Operates a formal monitoring process of Alumni giving his opinion, but this is not systematic, and their perceptions are not analyzed,	It operates a formal and systematic process that allows to obtain and analyze the views of graduates, but not regularly; only one period	Yes, it includes analysis of two or more periods.

		or Operates an orderly and systematic process of follow-up of graduates that allows obtaining their opinion and some analysis of these views are made.	of analysis is included.	
5. Does the program provide a formal and systematic process that allows to obtain and periodically analyze the opinion of employers?	No	Operates a formal monitoring process of employers that allows to obtain their opinion, but this is not systematic and their perceptions are not analyzed, or Operates an orderly and systematic process of follow-up of employers that allows obtaining their opinion and some analysis of these views are made.	It operates a formal and systematic process that allows to obtain and analyze the views of employers, but not regularly; only one period of analysis is included.	Yes, it has analysis of two or more periods.
6. Does the program provide a formal and systematic process that includes studies of needs of the workforce to support their curricular modifications?	No	Operates a process that includes studies of labor needs to support the curricular changes, but this is not formal or systematic.	Operates a formal process that includes studies of labor needs to support the curricular changes, but this is not systematic.	Yes
Assessment of the indicator 3.2	Not achieved	Partially achieved	Rating of 3 or more in questions 3.2.2, 3.2.3, 3.2.4 and 3.2.5	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 3.3 Curriculum	1	2	3	4
1. The curriculum of the program complies with the areas, and their respective characteristics, defined	The curriculum of the program does	The curriculum of the program does not comply with the	The curriculum of the program complies with the	Yes, the number of hours is not less than

by CACEI?	not comply with the minimum of hours established in the areas defined by CACEI.	minimum of hours established in 2 or more areas defined by CACEI.	minimum of hours in all the areas defined by CACEI, except in "Basic sciences" or in "Engineering design." The above provided that the number of hours in the other areas is not less than 10% of the established for each area.	10% of the established for each area.
2. Do exist the program's description of the various units of learning, courses or subjects?	There is no description of the programs of the learning programs, courses or subjects.	There is a description of some of the programs of the learning units, courses or subjects.	There is the description of practically all programs of learning units, or There are all the programs but they are in the process of review or approval.	There is a description for all programs of learning units, courses or subjects.
3. Is there a defined curriculum structure establishing the track that students should follow to complete the program?	No	Yes, but students and faculty do not know it.	Yes, but not all students or faculty know about it.	Yes
4. Is there an institutional process that periodically reviews the achievement of the objectives of the courses, subjects or learning units?	No	The achievement of the educational objectives, courses, learning units or subjects is reviewed, but not as part of an institutional process.	There is an institutional process to review the achievement of the educational objectives, courses, but is not done periodically, or it is not met in all its stages.	Yes
Assessment of the indicator 3.3	Not achieved	Partially achieved	Rating of 3 or more in 3 questions 3.3.1, 3.3.2 and 3.3.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 3.4 Graduate attributes	1	2	3	4
1. The graduate attributes of the program are	No	The attributes are defined, but	The attributes are defined and	Yes

<i>defined and published?</i>		are not published.	published, but the students or the faculty do not know them.	
2. <i>The graduate attributes are congruent with the educational objectives of the program?</i>	No	Only some of the graduate attributes of the program are consistent with the educational objectives.	Most of the graduate attributes of the program are consistent with the educational objectives.	Yes
3. <i>The graduate attributes of the program include or are equivalent to the seven desirable attributes of the engineer, outlined in the indicator 3.4?</i>	No	Only some of the graduate attributes of the program are equivalent to those defined in the indicator 3.4 of MR 2018.	Most of the graduate attributes of the program are equivalent to those defined in the indicator 3.4 of MR 2018.	Yes
Assessment of the indicator 3.4	Not achieved	Partially achieved	Rating of 3 or more in questions 3.4.1, 3.4.2 and 3.4.3	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 3.5 Congruence between the educational objectives of the program and the Mission of the institution	1	2	3	4
1. <i>The educational objectives are defined and published?</i>	No	The educational objectives are defined but are not published, or faculty and students do not know them.	The educational objectives are defined and published, but the faculty or the students do not know them.	Yes
2. <i>The educational objectives are consistent with the Mission of the institution and the school?</i>	No	The educational objectives are only congruent with: The institutional mission, or The Mission of the academic unit.	This rating option is not valid for this question.	Yes
Assessment of the indicator 3.5	Not achieved	Partially achieved	Rating of 3 or more in questions 3.5.1 and 3.5.2.	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 3.6 Curricular flexibility	1	2	3	4
<i>1. Does the curriculum integrate strategies or schemes that facilitate the incorporation of scientific and technological advancement?</i>	No	The design of the program only includes some strategies that facilitate, occasionally, the incorporation of scientific and technological progress.	The design of the program includes a reasonable number of strategies which facilitates the incorporation of scientific and technological advancement.	Yes
<i>2. Does the program allow the use of nonconventional learning options for the delivery of the courses, subjects or learning units?</i>	No	Only some non-conventional modalities are used for the delivery of the courses.	A reasonable number of non-conventional methods are used for the delivery of the courses.	Yes
<i>3. Does the program incorporate curricular or cocurricular internship, or stays and internships in the industry?</i>	No	It includes only internship or short stays, or Stays and internship have no curricular value (credits).	Most of the internships or stays have sufficient duration, or The internships have curricular value (credits)	Yes
<i>4. Does the program has institutional policies that facilitate and promote flexibility?</i>	No	Policies are unclear or do not apply.	Policies are adequate but could be improved.	Yes
Assessment of the indicator 3.6	Not achieved	Partially achieved	Rating of 3 or more in questions 3.6.1 and 3.6.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Criterion 4. Evaluation and continual improvement

Indicator 4.1 Achievement of the educational objectives	1	2	3	4
<i>1. Is there a formal process for the periodic evaluation of the educational objectives of the program with participation of faculty and representatives of the stakeholders?</i>	No	There is a process of regular evaluation, but only participate faculty groups, or There is a process of periodical	There is a formal evaluation process involving faculty groups and representatives of the stakeholders, but this is not periodic, or it has only	Yes

		evaluation, but only participate representatives of the stakeholders, o There is an evaluation process involving faculty groups and representatives of the stakeholders, but this is not formal or periodical.	done once.	
<i>2. The findings from the analysis resulting from the periodic evaluation are used to make recommendations to improve the assessment process, the educational objectives and the achievement of the goals established?</i>	No	Conclusions or recommendations from the analysis of the result of the periodic evaluation are used to improve: Only the process of evaluation, or Only the educational objectives, or Only the fulfillment of the established goals.	The conclusions or recommendations from the analysis of the result of the periodic evaluation are used to improve the process of assessment and educational objectives, but not for meeting the established goals.	Yes
Assessment of the indicator 4.1	Not achieved	Partially achieved	Rating of 3 or more in question 4.1.	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 4.2 Achievement of the graduate attributes	1	2	3	4
<i>1. For each graduate attribute of the program, is defined ...</i>				
<i>Its mapping in the curriculum?</i>	No	The mapping is insufficient, unclear or vague.	The mapping is sufficient but could improve its clarity and accuracy.	Yes
<i>The assessment tools?</i>	No	Assessment tools are not congruent with the attribute,	Assessment tools are adequate and congruent with	Yes

		or are inadequate or are not well designed.	the attribute, but its design can be improved.	
<i>Their performance indicators?</i>	No	The indicators are unclear, are not consistent with the attribute or are insufficient.	The indicators are enough but it could improve their consistency and clarity.	Yes
<i>The process for collecting results?</i>	No	The collection of data is unreliable.	Yes, but the analysis and evaluation of results is not included.	Yes
<i>2. Is there a systematic process to ensure continuous development, measurement and achievement of the graduate attributes?</i>	No	There is a process, but this is not systematic.	Yes, the process is systematic, but not always has an impact on the assurance of the continuous development, measurement or achievement of the graduate attributes.	Yes
<i>3. The conclusions from the analysis of the result of the periodic evaluation are used to make recommendations to improve the evaluation process, the graduate attributes and the achievement of the established goals?</i>	No	The results are only used in some cases.	The conclusions or observations from the analysis of the result of the periodic evaluation are used to improve the process of assessment and educational objectives, but not for meeting the established goals.	Yes
Assessment of the indicator 4.2	Not achieved	Partially achieved	Rating of 3 or more in question 4.2.1, in all four items, and 3 or more in question 4.2.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 4.3 Assessment of the indices of students' performance	1	2	3	4
<i>1. Are the relevant indices (drop out, graduation, etc.) referred in this criterion measured and appropriately</i>	No	Only school performance indices, or other components,	Performance indices are measured and analyzed, but	Yes

<i>analyzed?</i>		are measured, but they are not analyzed.	not systematically.	
2. Are results from comprehensive, integrated exams (similar to the national standardized EGEL exam) used?	No	There are some sporadic results or only from some students who do not constitute a representative sample.	There are results from comprehensive exams, but they are not analyzed.	Yes
3. Are these results used results to follow up the program?	No	Some results are used to follow-up the program.	A reasonable number of results are used to follow-up the program.	Yes
4. Are the conclusions from the analysis used to implement improvement actions for the program?	No	Only the conclusions of the analysis of results of some indices of school performance are used.	Conclusions of the analysis of results of most of the indices of school performance are used.	Yes
Assessment of the indicator 4.3	Not achieved	Partially achieved	Rating of 3 or more in question 4.3.1, 4.3.3 and 4.3.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 4.4 Continual improvement	1	2	3	4
1. Is there a formal process of periodic assessment and continuous improvement of the program?	No or Spreadsheet 4.4.1 was filled incorrectly, or it is incomplete, and it is not focused on the areas for improvement.	Only the levels of school performance are measured, or another component in a partial way, but they are not analyzed.	Yes, spreadsheet 4.4.1 is filled correctly, but the periodic evaluation and continuous improvement process is not formalized.	Yes, and the process is linked to the areas of opportunity for improvement.
2. This process uses the results of the evaluation of the educational objectives and graduate attributes of the program?	No	Only some of the results of the evaluation of the EO and GA of the program are used.	A reasonable number of results of the evaluation of the EO and GA of the program is used.	Yes
3. In the process participate faculty and	No	Some faculty groups and	Participate most faculty	Yes

<i>representatives of the stakeholders of the program?</i>		representatives of the stakeholders are involved, or Participate most of the faculty groups, or Participate most of the representatives of the stakeholders.	groups and most of the representatives of the stakeholders.	
<i>4. The process of assessment and continuous improvement is currently in operation?</i>	No	It is in operation, but it is neither formal nor systematic.	It is in operation consistently, but it is not formalized.	Yes
<i>5. Is there at least one closed improvement cycle which can display the complete continuous improvement process implementation?</i>	No	This rating option is not valid for this question.	Yes, but some elements of its design can be substantially improved.	Yes
Assessment of the indicator 4.4	Not achieved	Partially achieved	Rating of 3 or more in questions 4.4.1, 4.4.2, 4.4.3 and 4.4.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Criterion 5 Infrastructure and equipment

Indicator 5.1 Classrooms, laboratories, cubicles and support offices	1	2	3	4
<i>1. How are the conditions of the classrooms in terms of: sufficiency, lighting, ventilation, noise, audiovisual equipment, furniture, accessibility, connectivity and hygiene?</i>	No. The number of classrooms is not sufficient, and their characteristics are not adequate.	The number of classrooms is sufficient, but the majority does not comply with the required characteristics.	The number of classrooms is sufficient, and most of them meet the required characteristics.	Yes. The number of classrooms is sufficient, and all meet the required characteristics regarding the educational model.
<i>2. Do laboratories and shops of the program meet the standards set by CACEI?</i>	No. Laboratories and shops are not enough nor have the required	Yes, but some of the laboratories and shops are not enough or do not have the	Labs are sufficient in number and equipment, although a percentage of the equipment,	Yes. Labs are sufficient and adequately equipped and comply

	equipment.	required equipment.	in a short time, must be updated. Comply with safety measures and characteristics requested by CACEI.	with security measures requested by CACEI.
3. How are the conditions of the laboratories and workshops in terms of: sufficiency, functionality, security, isolation of noise, furniture, accessibility, connectivity, hygiene and audio-visual equipment?	No. Laboratories do not comply with the characteristics requested by CACEI.	The number of laboratories and workshops is sufficient, but the majority does not comply with the characteristics requested by CACEI.	Workshops and laboratories comply with the requested characteristic, but should, in the short term, given maintenance to continue serving the needs of the program.	Yes. Laboratories comply entirely with the characteristics, adequacy and functionality.
4. Do cubicles, and working spaces for faculty are adequate and functional?	No	Yes, there are spaces but need some conditioning to meet the needs of the program.	Yes, most of the cubicles and spaces are suitable.	Yes
5. Are there any relevant areas for activities that support the development of students?	No	Yes, there are conditioned spaces for development of student activities.	Yes, and there some spaces to support a comprehensive education.	Yes
6. Do support and service spaces to the community (faculty, students, staff) are sufficient and functional?	No	Yes, these spaces are conditioned for such a purpose.	Yes, there are some, and others are conditioned for such a purpose.	Yes
7. Are there actions for the assurance of quality and the continuous improvement of classrooms, laboratories, cubicles and support offices?	No	Yes, but there are only remedial maintenance actions.	Yes, there are actions that are applied most of the time.	Yes
Assessment of the indicator 5.1	Not achieved	Partially achieved	Rating of 3 or more in questions 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5 and 5.1.7	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 5.2 Computer resources	1	2	3	4
1. The computer resources are sufficient and adequate to meet the characteristics and enrollment	No	The resources are not enough and are not always	Yes, they are sufficient and adequate, although in the	Yes

<i>of the program?</i>		relevant.	short term they must be updated.	
2. <i>The computers are adequate and meet the needs of the users?</i>	No	Yes, but the equipment is inadequate and serves the needs of the program in a limited way.	Yes, the equipment is sufficient and satisfactory, but part of it must be updated in the short term.	Yes
3. <i>The connectivity is sufficient and meets the needs of the users?</i>	No	Yes, but it is limited.	Yes, it is sufficient and satisfactory, although it should be strengthened or improved.	Yes
4. <i>Is standard and specialized software sufficient, up-to-date and meets the needs of the users?</i>	No	Yes, but it is incomplete, and some programs do not have licenses for their use.	Yes, it is out of date, but the number of licenses is not enough to meet the needs of the students.	Yes
5. <i>Is the technical support required by the computer resources timely, sufficient and suitable?</i>	No	Yes, but technical support is not routine.	Yes, but sometimes is not appropriate or sufficient.	Yes
6. <i>Are there actions for the assurance of the quality and the continuous improvement of computing resources?</i>	No	Yes, but the actions are sporadic.	Yes, there are actions most of the time.	Yes
Assessment of the indicator 5.2	Not achieved	Partially achieved	Rating of 3 or more in questions 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5 and 5.2.6	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 5.3 Information Center	1	2	3	4
1. <i>The services of the Information Centre, physical and remote, are sufficient, adequate and effective to meet the needs of the program?</i>	No	Yes, but only one of the three characteristics (sufficient, appropriate and efficient) is met.	Yes, but only two of the three characteristics (sufficient, appropriate and efficient) are met.	Yes
2. <i>Are there actions for quality assurance and continuous improvement of these services plan?</i>	No	Yes, but only some sporadic actions are followed.	Yes, there is a plan, but monitoring is not always followed.	Yes
3. <i>Does exist use, compliance, and acceptance of</i>	No	Yes, but based on sporadic	Yes, but the process is not a	Yes

<i>the Information Center by students of the program?</i>		surveys.	formalized.	
4. Are there useful and current technological resources of information relevant to the program?	No	Actuality and validity of the acquis are limited.	Yes, the acquis is current and up to date, but still unmet needs are identified.	Yes
Assessment of the indicator 5.3	Not achieved	Partially achieved	Rating of 3 or more in questions 5.3.1, 5.3.2, 5.3.3 and 5.3.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 5.4 Safety and user manuals	1	2	3	4
1. Are there guides and user manuals for tools, equipment, computing resources and laboratories to meet the needs of the program?	No	Yes, but only some tools, equipment, computing resources and laboratories have guides and manuals.	Yes, most of the tools and equipment have guides and manuals.	Yes
2. Do the guides and manuals include aspects of security for the users, computers, and working spaces?	No	Yes, but only for some tools, and equipment.	Yes, for most of the tools and equipment, or Yes, but some guides and manuals should be upgraded to meet the standards.	Yes
3. Is there a strategy precise and efficient to provide training to the users about the handling and safe use of tools, equipment, computing resources and laboratories related to the program?	No	Yes, but only for some tools, equipment, computing resources and laboratories.	Yes, in all cases, although some of the material used should be updated.	Yes
4. There are contingency plans in the case of accidents or incidents in the facilities or for the use of equipment that is related to the program?	No	Yes, but the current plans are incomplete.	Yes, but the drills that are not done.	Yes
5. Are the contingency plans known and put into practice on a regular basis plans to the academic community?	No	Yes, but the dissemination of plans is partial.	Yes, most faculty know the contingency plans.	Yes
6. Are there actions for the continuous improvement of the contingency plans and quality assurance?	No	Yes, but they are sporadic actions.	Yes, most of the time those actions are carried out	Yes
Assessment of the indicator 5.4	Not achieved	Partially achieved	Rating of 3 or more in questions 5.4.1, 5.4.2,	

			5.4.3, 5.4.4 and 5.4.6	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 5.5 Maintenance, modernization and replacement	1	2	3	4
<i>1. Does the program have maintenance programs?</i>	No	Yes, but only for corrective maintenance.	Yes, but they are not formalized.	Yes
<i>2. Does the program have plans to upgrade or modernize equipment and facilities?</i>	No	Yes, but they are only implemented sporadically.	Yes, but they are not formalized.	Yes
<i>3. Do the programs of maintenance, upgrade or modernization of equipment and installations have scheduled dates and dates of compliance?</i>	No	Yes, but only sometimes meet the scheduled dates.	Yes, most of the time meet the scheduled dates.	Yes
Assessment of the indicator 5.5	Not achieved	Partially achieved	Rating of 3 or more in questions 5.5.1 and 5.5.3	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Criterion 6 Institutional support

Indicator 6.1 Institutional leadership	1	2	3	4
<i>1. Is there a defined organizational structure that supports the effective operation of the program?</i>	No	Yes, but the structure is broad and does not identify how supports the program.	Yes, the structure shows the functionality of the program, though is not formalized.	Yes
<i>2. Is there a regulation that defines functions for each position described in the organizational structure as well as the rights and obligations of the members of the community?</i>	No	Yes, but it is a regulation that only partially covers these aspects.	Yes, but some of these aspects must be updated.	Yes
<i>3. Do the program, the school and the institution have articulated and coherent development plans?</i>	No	Yes, but there is only the development plan for the institution, or just for the	Yes, there are plans in the three levels, but they are not articulated adequately.	Yes

		school.		
4. The Coordinator or head of the program has an academic background or experience related to the program and has the academic management skills?	No	The responsible for the program has experience in management, but his/her education is not related to the program.	Yes, responsible for the program has the related education but has only some management skills.	Yes
5. Is there some systematized mechanism to know the level or degree of acceptance that the program and its graduates have in the various sectors of influence?	No	There is a mechanism, but this is not systematic.	Yes, but its use is incipient.	Yes
Assessment of the indicator 6.1	Not achieved	Partially achieved	Rating of 3 or more in questions 6.1.1 and 6.1.2, 6.1.3, 6.1.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 6.2 Institutional services	1	2	3	4
1. Does the program offer students academic support like tutoring, advising, guidance, and counseling?	No	Yes, but only offers one of the three services or all at limited hours.	Yes, but only offers two of the three services, or during the majority of the class schedules.	Yes
2. Does the program offer the student the administrative support that facilitates their entry, permanence, and graduation?	No	Yes, but at limited hours.	Yes, during most of the class schedules.	Yes
3. Does the program offer student services: medical, health and welfare?	No	Yes, but only offers one of the three services, or all at limited hours.	Yes, but only two of the three services, or during the majority of the class schedules.	Yes
4. Does the program have an exchange with various sectors using several strategies to strengthen the education of the students?	No	Yes, but they are sporadic actions, arising from the interest of some faculty.	Yes, they include residences or stays in the sector of incidence, but it is not formalized.	Yes
5. Does the program have a mechanism that facilitates decision making whereas relevant	No	Yes, but it is rarely applied.	Yes, applies most of the time.	Yes

<i>information obtained from the various institutional support services?</i>				
Assessment of the indicator 6.2	Not achieved	Partially achieved	Rating of 3 or more in questions 6.2.1, 6.2.2, 6.2.3 and 6.2.4	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 6.3 Financial resources	1	2	3	4
<i>1. The financial resources available are sufficient for the operation and improvement of the program?</i>	No	Yes, but partially.	Yes, but they are not always linked to the totality of needs.	Yes
<i>2. Does the program obtain additional resources to the regular budget?</i>	No	Yes, but only sporadically.	Yes, but they are still limited.	Yes
Assessment of the indicator 6.3	Not achieved	Partially achieved	Rating of 3 or more in question 6.3.	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded

Indicator 6.4 Support staff				
<i>1. Is the program supported by a set of sufficient and qualified staff that facilitate the achievement of the educational goals?</i>	No	Yes, the support staff is sufficient, but few are trained for those specific tasks.	Yes, most support staff meet their job description, and they are trained in their duties.	Yes
<i>2. Does the program have mechanisms that allow knowing the degree of satisfaction of the academic community concerning the support services?</i>	No	Yes, but the mechanisms are used sporadically.	Yes, they are used in most periods.	Yes
Assessment of the indicator 6.4	Not achieved	Partially achieved	Rating of 3 or more in questions 6.4.1 and 6.4.2	
			Achieved, but at risk of breaching during the duration of the accreditation	Is achieved or exceeded