

SELF-EVALUATION GUIDE FOR ACCREDITATION of Science-Based Engineering programs

VERSION 2.0

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1. INTRODUCTION

The Accrediting Agency Colegio de Ingenieros de Chile S.A., Acredita CI, presents this Guide that describes the format of the **Self-Evaluation Report** that a Science-Based Engineering program must submit to its accreditation process.

1.1. THE SELF-EVALUATION PROCESS

For the accreditation process, the program carries out a critical, detailed and reflective analysis about the fulfillment of the 9 evaluation criteria of Acredita CI. This process is called the self-evaluation process.

Self-evaluation is always an internal way of evaluation that is aimed at strengthening the management capacity of the academic unit to lead to a systematic planning of actions to improve its educational process and follow up on them.

Self-evaluation allows to establish a diagnosis regarding the state of development of the program at a time in all its locations, schedules and modalities (where applicable), which is mandatory. The accreditation of a program does not differentiate between locations, schedules and modalities, which is why the process must ensure the quality of the student's education in all the locations, schedules and modalities in which the program is taught and that are in force.

In accordance with the Master Manual, the Evaluation Criteria are themselves defined, however, "aspects to be considered" are added to these criteria to facilitate and specify their assessment. The analysis of each criterion, as well as the aspects to be considered, will lead to a conclusion as to the program to which each criterion is met.

For the process, it is advisable to establish a Self-Evaluation Committee that has representatives of the community related to the program (managers, teachers, students, administrators, graduates, employers, etc.).

1.1.1. STAGES OF THE SELF-EVALUATION PROCESS

ORGANIZATION AND WORK PLANNING

For maximum efficiency in the process, define a work plan that includes: calendar, distribution and assignment of tasks and the necessary resources (human, material, and IT). It is important that the decisions taken by the various actors collaborating in the report are consensual.

DEVELOPMENT OF SELF-EVALUATION

Since the self-evaluation process for accreditation is based on the analysis of the program situation with respect to the evaluation criteria set out in the **Master Manual for Accreditation of Science-Based Engineering Programs** of Acredita CI; it should be based on the evidence gathered, i.e. on reliable evidence that adequately supports the statements and assessments made by the program self-evaluation committee on student learning in relation to the achievement of graduate attributes, among others.

Scopes of work to be developed

The self-evaluation report describes compliance with the evaluation criteria for each of the programs being presented to the process, even if these programs depend on the same Unit.

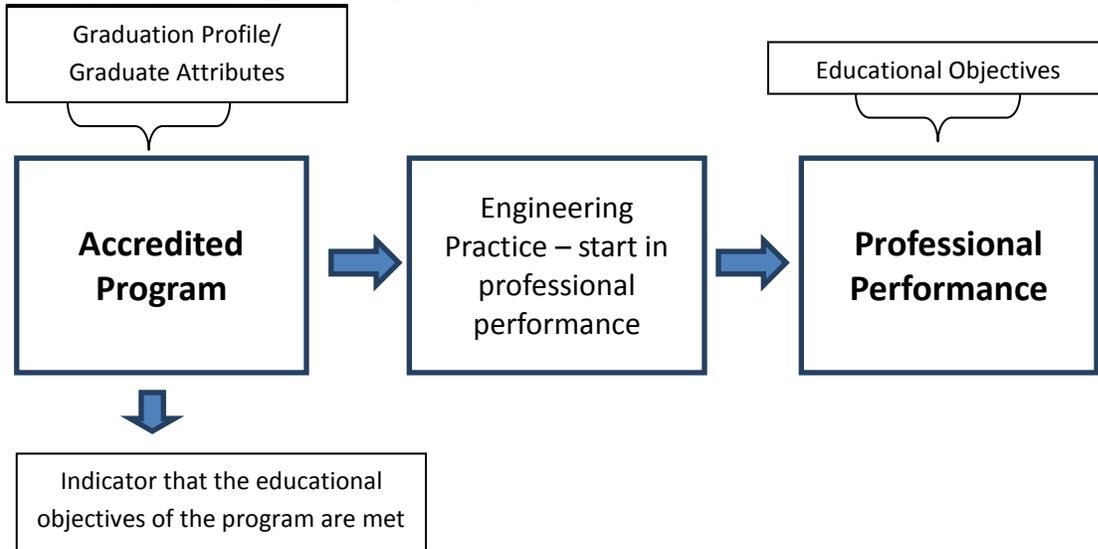
To present compliance with the criteria and therefore the graduate attributes, the information for each program will refer to the results of its educational process.

Any information shared by programs as a product of reliance on the same Academic Unit may be replicated in the report, where applicable. This is because the program is evaluated separately, depending on the results of each of them.

Collecting information

Those responsible for the program and their teachers must collect and organize all the information required in tables 1, 2, 3 and 4 requested by Acredita CI and detailed in this Guide. In the event that the program is taught at various locations, schedules or modalities, the information must be collected separately for each of them for analysis and conclusions.. It is also necessary to collect the annexes to the report detailed in this Guide and rely on the examples of evidence by each criterion, as set out in Annex 1. The program will be able to incorporate additional evidence, whenever it requires it. Similarly, evaluator pairs might request additional evidence during the process.

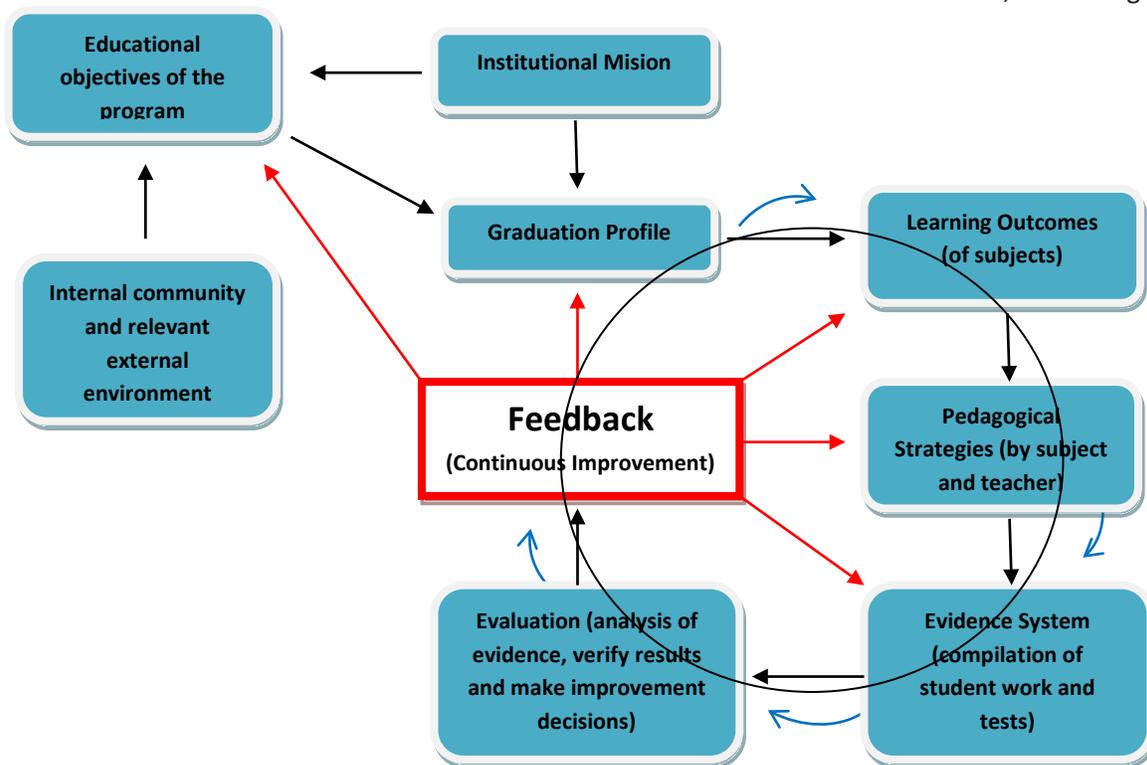
The **accreditation process** focuses on the mechanisms that the program uses to achieve the graduate attributes and therefore the graduation profile in its students.



Acredita CI suggests conducting the process for improving decision-making in the Unit and the program, according to the following Continuous Improvement Diagram.

Figure 1: Conceptual model for continuous program improvement

Conceptual model for continuous program improvement
 © 2014, Gloria Rogers



Definitions

The **educational objectives**, are medium-term, refer to the expected professional performance of engineers a few years later (3 or more years) that they have graduated from the Institution. This performance reflects the institutional purposes expressed through its **Mission**, enabling them to verify their consistency through consultation with graduates. In some cases, an essential part of these objectives is expressed in the Model or Educational Project through the Institutional Seal. The pertinence of the program is reflected in this definition. These objectives guide the definition of the graduation profile which includes the graduate attributes.

Acredita CI makes available to the programs Table 11.4 of its Master Manual, named the Professional Competencies Profile, which will also allow them to contrast the professional performance of graduates with these professional competences. The educational process that includes the Graduate Attributes of Acredita CI ensures professional performance similar to that set out in Table 11.4.

The **graduation profile** describes what students are expected to know and be able to do when they graduate from the program. It refers to the knowledge, skills and attitudes that students acquire during their program advancement and that a program is intended to achieve through the learning outcomes defined in the subjects planning.

The graduation profile must be consistent with educational objectives which in turn reflect institutional purposes.

The **evidence system** consists of mechanisms by which information is identified, collected and prepared that is a selection of all that individual, group, laboratory, testing, examination, capstone projects, practical activities, among others, that the teacher designed to measure the graduate attributes and which the student responded or performed in the subject; to further assess the achievement of the student's learning outcomes. Consider systematic collection work, which can be biannual, where the graduate attribute is measured (the graduate attribute can be a specific learning result or a set of learning outcomes). The ideal will be to analyze the information of the last two years for the selected key subjects.

The **evaluation** is the review, analysis and improvement decisions on the results of the evidence that was collected through the described evidence system. The results refer to the performance of students in the achievement of the selected attribute(s) and therefore of the competences established by the graduation profile. Depending on the results of this analysis and contrasting them with those of the subject that have been planned, the program (or the teacher who teaches it) **makes decisions to improve** the educational process, either to adjust the graduation profile, the contents of the subject, the learning outcomes, the evaluation tools themselves, the pedagogical strategies, teacher training, necessary infrastructure, support for students who do not achieve the expected level of learning, among others. This process is called **feedback**, and it is the essence of continuous quality improvement because it is used for the purpose of improving

students' learning of the learning outcomes committed in the subject and therefore improving their progress and ensuring their progress in the program.

In this way, the self-evaluation process describes compliance with the Acredita CI evaluation criteria by focusing primarily on describing the educational process as detailed in the Conceptual Model in Figure 1 and its results, explaining the mechanisms described in the definitions in the preceding paragraphs and the program improvement decisions.

1.2. MANDATORY ANNEXES

In addition to this decision-making process, the program should present the following Tables which are mandatory annexes, as detailed below:

TABLE 1: correlation table between graduation profile competencies, graduate attributes and curriculum subjects.

TABLE 2: subject folders - evidence of the measurement of attributes.

TABLE 3: progress tables in registration, retention and graduation of the last 10 years.

TABLE 4: Graduate attribute table and subjects.

The format of the tables is presented in the Annex to this Guide. Table 3 is an Annex whose format is published on the Acredita CI's website (Engineering Accreditation, Manuals and Forms section).

1.3. THE IMPROVEMENT PLAN

As a result of this process, the program will identify its strengths and weaknesses. **Fundamentally, the program will identify those aspects where substantive efforts need to be invested to improve student's learning outcomes, in line with its own commitments and planning.**

That is why in the context of the existence of a culture of quality and the functioning of a system of continuous improvement, permanent self-evaluation is a fundamental tool: it is to systematically analyze the results of students of the program, contrast them with their own goals and find spaces for improvement.

Improvement spaces are conclusions from which the **Program Improvement Plan** is born, through which the program comprises the implementation of improvements in those weaker aspects of the educational process, which result for example from an piecemeal evidence system, students with low achievement of attributes in relation to the planning or goals established by the program, incorporate systematic mechanisms to improve student learning or low consistency between objectives and outcomes; what is a result of this process of reflection.

The description of the program of compliance with the criterion needs to be made as a result of consensus among community members involved in the preparation of the report with active teacher participation.

The program is expected to reach these conclusions in a participatory way including students and faculty who are the key to achieving the learning outcomes, to gather their opinions and incorporate them. Achieving broad community engagement at this stage that makes program-related decisions is an important element of the process because it strengthens the definition of improvement mechanisms and their subsequent implementation and validates the development of the self-evaluation process and its conclusions.

In the event that the program is taught in several locations, schedules or modalities of teaching-learning (presence, remote or blended, in special programs or continuity of studies) the information for the different criteria and aspects to be considered, it must be disaggregated, because the evidence of achievement of student learning outcomes must be analyzed disaggregated by each location, schedule and modality. That is why during the development of the self-evaluation process, the program must do its best to solve weaknesses if they are verified in any of the locations, schedules and modalities and commit improvements to equate the performance of each of them towards that of the best performer.

Assessing the program of compliance with the evaluation criteria

To assess the program of compliance with the evaluation criteria, the description of how the program is positioned for each of the criteria is first made. The program will provide a detailed description of the mechanisms by which it considers that it complies with the criterion, presenting substantive and irrefutable evidence as described above; to finally decide whether the criterion is met or not met, or whether there is any progress or simply no progress or this is non-existent in relation to results and its improvement mechanisms.

The evaluation of the criterion and its program of compliance, will be established according to the definitions delivered by Acredita CI: MEET; DOES NOT MEET-IN DEVELOPMENT; DOES NOT MEET-INEXISTENT, defined in the Master Manual for Accreditation of Science-Based Engineering Programs and set out below:

A criterion **is met** when there is evidence that the policies and mechanisms are known and applied in a systematic way, showing results that are periodically reviewed.

Otherwise, we are in the presence of a weakness: the criterion **does not meet** and will be valued either as **in development** or as **inexistent**. A criterion that is not met is in development when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic. A criterion that is not met is inexistent when the program has defects in its design or does not have formal or systematic policies or

mechanisms in its educational process, or there are only statements, but no evidence of its application.

The program will be able to verify how compliance levels impact the accreditation decision, on pages 15 and 16 of the Master Manual for Accreditation of Science-Based Engineering Programs of Acredita CI. It is suggested to review in detail those cases in which the program accredits for 3 years, for its importance.

The methodology described is intended to facilitate the work of the people responsible for the preparation of the report when assessing the situation of the program, in view of each of the criteria and characteristics required by the process. In the same way, it allows the program to assess its situation in the face of the fulfillment of its purposes and institutional purposes, which strengthens its contribution to institutional accreditation.

1.4. THE SELF-EVALUATION REPORT

This report should be written in simple and understandable language, thinking that it is being written for a third person who does not know the program or the institution. It should explicitly guide its arguments to account for the achievement of the criterion under evaluation, citing the evidence supporting evaluative judgment. The arguments and evidence should clearly reflect the situation of the program in each location, schedule or modality in which it is taught.

The Self-Evaluation Report may present strengths and weaknesses resulting from the reflection of the program, separated by location, schedule and modality where appropriate. The program is committed to establishing actions to maintain its strengths and overcome those weaknesses. The commitment to overcome weaknesses will be explicit in the Improvement Plan, clearly indicating the location, schedule or modality in which it applies, where applicable. The Improvement Plan is a guide to future actions, which can be incorporated into the Program Development Plan to ensure its achievement.

The Self-Evaluation Report shall be prepared in the format suggested below in this manual. The document needs to indicate whether the financial resources involved in the Improvement Plan are approved by the Institution to carry it out.

The program will send the Self-Evaluation Report to Acredita CI within the timeframe set out in the Manual of Rules and Procedures, for incorporation into the accreditation process.

Alongside the report, the program will send the evidence supporting its evaluative judgments, the mandatory information reflected in the 4 tables detailed and the 25 annexes indicated in this document.

Special cases

In the event that the program is in the process of curriculum innovation, the information to be submitted should consider the previous plan and the current one. Evidence should consider the results of the educational process of both plans and the activities of the new plan in force with a contrast in the adjustments made between the previous and current plan, which explains the reasons for the innovation, even more so if the previous plan still has students and because the results of the process and those qualified to interview, usually reflect the education received in the previous plan, and because the education and its future results depend on the innovated plan. Remember that it is sought to verify the achievement of the graduate attributes so it is important to present the evidence following the same logic described in the preceding paragraphs for each curriculum, if applicable, where the relevant is in the mechanisms to carry out the educational process and verify evidence of the achievement of the learning outcomes.

Ideally the program should explain the graduation profile changes, if applicable, therefore tables 1, 2 and 4 will be replicated for both plans, where applicable.

Self-evaluation reflects the reality of the program at the time the process is carried out, therefore it is a set of activities of the educational process, which is based on institutional definitions such as the Mission, the Educational Model, the graduation profile and the graduate attributes. In this way, the Self-Evaluation Report should represent that continuum, showing the current and real situation of the program as a whole.

2. FORMAT TO WRITE THE SELF-EVALUATION REPORT

2.1. PROGRAM FILE

1) Unit Data

Institution:	
Name of the unit: (School, area, as appropriate)	
Address:	
Name of the highest authority of the unit:	
Position:	
Name of the person in charge of the accreditation process: (For subsequent communications)	
E-mail of the person in charge of the accreditation process:	
Telephone of the person in charge of the accreditation process:	

2) Detail of the program (s) to present to the process:

(Repeat this information as many times as necessary, depending on the program or programs that are presented to the process)

Name	
Professional title to which it leads	
Academic program	
Mentions (if appropriate)	
Creation Decree No.	
Name of the program according to the Information System for Higher Education (www.mifuturo.cl)	
Does it has previous Accreditation? Yes /No (If the answer is affirmative, indicate the name of the Accreditation Agency and the expiration period of the accreditation)	
Cut-off date of the information presented in the Self-Evaluation Report. (Example: semester XXXX/ year XXXX)	
Related Higher Education Institutions ¹	

¹To prevent potential conflicts of interest when proposing the Peer Evaluation Committee to the program, Acredita CI requests the Institution to report the name of any Higher Education Institution with which it may share or have a relationship of ownership or administration.

Detail of Locations, Schedules and Modalities² in which the program is taught

(Repeat as many times as necessary)

No.	Location Name	Schedule (Daytime/ Afternoon)	Modality (Face-to-face /Blended/ Remote)	SIES ³ Code	Start year of the Program at the location	Observations
1						
2						
3						
4						
5						
6						
7						
8						

Complete the information indicated, for each location, schedule and modality reported. This information will be referred to through the serial number assigned to each one.

Detail of the program for each location and modality:	
1	Total number of students enrolled to date:
	Nominal duration of the program expressed in semesters:
	Total number of graduates to date:
	Number of cohorts with graduates to date:
	Indicate the system for measuring student workload: Example: transferable credits / teaching units / credits / other.
	Indicate total credits / units of student workload

²All the schedules and modalities in which the program is taught and that are in force or in the process of closing must be reported provided that it has students studying, which can be: daytime or afternoon; in face-to-face, blended or remote mode, regular programs.

³ This Code is obtained from the Database provided by the Website and www.mifuturo.cl as Single Code. The program presented to the accreditation process, as well as each of the locations, schedules and modalities reported in this Application, must be those in force at the time of this presentation and at the same time this information must match the information presented in the Database of the Information System for Higher Education (SIES). In the event that the current offer does not match what is indicated in SIES (SIES presents another offer in addition to the current one or the offer is not informed in SIES), explain the reasons why this information does not match as well as the steps to be taken by the Institution to solve it. Please indicate this in the "Observations" column.

2.2. FRAMEWORK

The program will explain its operation, organization, decision-making structure and academic project. Maximum 3 pages.

To this end, reference will be made to institutional definitions; Strategic Plan, Educational Model and other relevant ones, as elements that establish institutional purposes and set the context of the functioning of the Unit and the program.

ADVANCES REGARDING THE PREVIOUS ACREDITATION PROCESS (where applicable).

Make explicit the actions taken to overcome weaknesses and the assessment of the impact or effectiveness of these actions.

2.3. EVALUATION OF THE QUALITY OF THE EDUCATION OFFERED

CRITERION 1: EDUCACIONAL OBJECTIVES

The program has a clear definition of its objectives and has mechanisms that allow it to evaluate the achievement of them.

1.a. The Unit has a clear definition of its objectives and goals.

- *State the educational objectives of the program*
Educational objectives: they are medium-term, they refer to the expected professional performance of engineers a few years later (3 or more years) since they have graduated from the Institution.
According to the Continuous Improvement Model, these objectives reflect the institutional purposes expressed in the Mission.

1.b. The program declares its reason for being and makes explicit the student population to which it is oriented, the occupational field for which the students are prepared and the educational project that guides the respective educational process.

1.c. The educational objectives of the program are coherent with the institutional mission and have formal academic management mechanisms to verify that they are achieved.

- *Indicate the relation of educational objectives with the Institutional Mission and the procedure for assessing and adjusting objectives, if any, as well as mechanisms for verifying that they are achieved.*

*Present the evidence in a directory or folder named **Criterion 1**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION2: GRADUATION PROFILE

The program has a relevant graduation profile, updated, validated, disseminated and known by the community. The program shows that the graduation profile includes the graduate attributes.

2.a. The institution has quality assurance policies and mechanisms that reaffirm the consistency among the graduation profile, mission, vision and institutional purposes.

2.b. The graduation profile is consistent with the offered academic program. The graduation profile is related to the educational level of the program.

2.c. The academic unit has policies and mechanisms designed to capture the requirements of the environment in the disciplinary and professional field that are its own, providing feedback of its action in the area of graduation profile.

2.d. The academic unit demonstrates to have policies and mechanisms that allow knowing the state of art of the scientific, disciplinary or technological bases that underlie the academic education intended to be provided, considering them in the definition of the declared graduation profile. These mechanisms include a periodic review of the graduation profile, with a frequency that is at least equivalent to the duration of the curriculum.

2.e. The graduation profile is expressed in an accurate and explicit way and considers the distinctive characteristics of each mention, when they exist.

State the graduation profile of the program.

2.f. The graduation profile is consistent with the graduate attributes.

Use the correspondence matrix TABLE 1, to associate the graduate attributes with the graduation profile from the program. Explain this association.

2.g. The graduation profile is adequately disseminated, both internally and externally, being known by the academic community and the relevant external community.

Pay special attention to the relevant external medium where the program's graduation profile is disseminated. It is interesting that the program be inserted in the environment corresponding to the program it grants.

Present the evidence in a directory or folder named **Criterion 2**.

See examples in Table Annex 1.

a. Assess compliance with the Criterion:

- **Meet:** there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.
- **Does not meet - in development:** when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.
- **Does not meet - inexistent:** the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.

b. Give your opinion on compliance with the criterion. Justify your answer.

CRITERION3: CURRICULUM

The program has systematic and documented processes for the design and implementation of its teaching-learning process oriented towards the achievement of the graduation profile and the graduate attributes. There are periodic evaluation policies and mechanisms for the subjects offered, depending on the declared learning objectives.

For the analysis of this criterion, consider Table 1: Correlation between Graduation Profile Competences, Curriculum, and Graduate Attributes; Table 4 of graduate attributes and subjects, as annexed in this report; and Table 2, of the folders by subjects with the evidence of measuring attributes.

3.a. The program structures its curriculum, subject programs and curricular activities in function of the graduation profile.

Use Table 1 to point out the articulation between the objectives or learning outcomes between the different subjects and the advancement in achieving the graduation profile and graduate attributes.

3.b. The curriculum identifies the different areas of education that lead to satisfying the graduation profile, making explicit the curricular and personal development activities tending to provide an integral education in the students.

Refer to the integral education of the student within the framework of the Institutional Educational Model.

3.c. The program establishes learning objectives or results and assessment instruments that can be verified and relevant to the graduation profile and, therefore, to the graduate attributes. These learning objectives or outcomes and assessments can be set at the level of each subject, cycles or educational levels, to verify learning as the student progresses through the curriculum.

The focus is on the graduate attributes in Table 4 that explains the subjects to measure them.

Explain the mechanism and planning used to measure each of the 12 attributes in no more than 300 words per attribute.

Present evidence according to the requirements of Table 2.

3.d. Curriculum considers theoretical and practical exercises in a consistent and integrated manner. To do this, the program has, when necessary for the achievement of the graduation profile, effective associations with employers for quality internships during its development, so that students achieve the knowledge, skills and the necessary readiness to effectively exercise their future occupational activity.

Focus the analysis on practical activities used to strengthen student learning that emphasize the graduate attributes. Explain its effectiveness in achieving these purposes and the improvements implemented in this regard, when appropriate.

3.e. The curriculum and the corresponding curricular activities are formally and systematically made known to students.

3.f. The institution, the unit and the program have a system that allows to quantify the real academic workload of the students in comparable units (credits or chronological hours), according to a reasoned and proportional standard defined in the academic regulations of the institution in question. It is suggested to adhere, preferably, to the System of Transferable Credits (SCT-Chile).

3.g. For the graduation process, students develop one or more activities in which they demonstrate their ability to solve complex engineering problems according to the defined graduation profile. These activities are part of the curriculum and are considered within the declared duration of the program.

Consider the guidelines of points 11.1; 11.2 and 11.3 of the Master Manual for Science-Based Engineering Programs.

3.h. The program periodically evaluates the curriculum plan and the subjects offered, proposes modifications and keeps it updated in all its locations, schedules and modalities, if any.

Indicate if there is a specific Unit to carry out this evaluation and if so, indicate in detail who are its members.

3.i. The unit collects information in the community relevant to the graduates' occupation and performance situation and uses the obtained background information to update and refine its curriculum.

3.j. In the event that the graduation profile of a program requires proficiency in a second language, such knowledge will be required in the admission processes or learning, exercise and evaluation opportunities will be provided via the curriculum.

*Present the evidence in a directory or folder named **Criterion 3**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION 4: FACULTY

The program has a sufficient and suitable faculty to fully comply with all the activities and learning committed in the curriculum, which allows its students to progress systematically towards the achievement of the graduation profile.

4.a.The number, stay and dedication of time by the faculty ensure the application of the curriculum for the compliance with the direct teaching and activities inherent to the teaching-learning process (evaluations, practical works, preparation of assignments and exercises, the use of information and communication technologies), as well as the supervision of the teaching-learning process and the assistance and guidance for students out of the class time.

BOX 1: Complete the box indicating the number of teachers in the program for the last semester of the evaluation period:

- Dedication: 1: Up to 10 hours a week
 2: From 11 to 21 hours a week
 3: From 22 a 43 hours a week

<i>Indicate: last semester of the evaluation period</i>						
HIGHEST ACADEMIC GRADE	DEDICATION TEACHERS /ACADEMICS					TOTAL
	FULL TIME		PART TIME			
			1	2	3	
<i>PhD</i>						
<i>MSc</i>						
<i>Lic</i>						
<i>Professional title</i>						
TOTAL						

Detail in Box 2 below the teachers of the program indicated in Box 1. Box 2 may be incorporated as an Annex to the Report if it deems necessary:

BOX 2:Detail of teachers / academics of the program at the end of the last academic year reported in this self-evaluation process.

	Name	Professional Title	Highest Academic Grade	Year of start of activities in the program	Faculty Hierarchy	Hired time dedication	Type of contract	Unit to which belongs	Subject taught
1									
2									
N									

4.b. The program proves to be provided, as a whole, with a qualified and competent faculty in order to develop the curriculum in accordance with its purposes and the graduation profile. The qualification and competence of the faculty will consider the disciplinary needs regarding the academic education received and pedagogical education, as well as the program path in the scientific, professional, technical or artistic field, as appropriate.

Describe specifically the mechanisms through which disciplinary competencies contribute to the educational process.

Describe specifically the mechanisms through which pedagogical training contributes to the educational process.

To do this, use practical examples through a set of 2 representative subjects of Basic Sciences, 2 of Engineering Sciences, 2 of general education and 2 of professional training.

4.c. The program has a highly dedicated and long standing academic core, leading and giving sustainability to the educational project along the time and allowing covering the needs within the curriculum in all the locations, schedules and modalities.

4.d. There are known standards and instruments for the selection, recruitment, evaluation, promotion and dismissal of the academics, applied systematically and being able to be provided with special regulations for the unit.

4.e. Policies and improvement mechanisms are applied that allow updating and training of faculty in disciplinary and professional aspects.

BOX 3: *Detail of faculty members of the program at the end of the last academic year reported in this self-evaluation process, who have received improvement in disciplinary and professional aspects in the last five years.*

No.	Name of the faculty member	Improvement activity	Participation date

Concisely explain the policies or mechanisms that allow these activities to be carried out.

4.f. Policies and improvement mechanisms are applied that allow updating and training of faculty in pedagogical aspects.

***BOX 4:** Detail of faculty members of the program at the end of the last academic year reported in this self-evaluation process, who have received improvement in pedagogical aspects in the last five years.*

No.	Name of the faculty member	Improvement activity	Participation date

Concisely explain the policies or mechanisms that allow these activities to be carried out.

4.g. Mechanisms are applied that allow to evaluate the activities of the faculty of the program - particularly the report on the learning outcomes- which are applied effectively and systematically in the administration of the faculty. These instruments consider the opinion of the students, superiors and peers for the qualification of academics.

Present evidence of the results of the last performance evaluation of a group of 3 full-time teachers and 3 part-time teachers.

Explicitly indicate the mechanisms by which the information resulting from this evaluation process is applied to manage these personnel.

Explain the mechanisms by which information on the achievement of learning outcomes is considered in this evaluation process. Consider the Continuous Improvement Model and the role of the faculty member in the model.

4.h. The program has instances of communication and participation of faculty, clearly established and known, that facilitate the coordination with the program authorities regarding the matters that are specific to their teaching functions.

Consider that the process focuses on student learning. The subjects of teaching functions refer to this focus, therefore, to all teaching activities aimed at achieving this learning.

Present the evidence in a directory or folder named **Criterion 4**.

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION 5: INFRASTRUCTURE AND LEARNING RESOURCES

The program is provided with the infrastructure, learning resources and equipment required for the achievement of the expected results in the students. Likewise, the institution applies policies and mechanisms for the development, replacement, maintenance and safety of the said infrastructure and resources.

5.a. The program has the infrastructure according to its nature (such as classrooms, laboratories, workshop stations, libraries, equipment, experimental areas, and computing resources, among others) which is sufficient and functional to the needs of the curriculum and the number of students. The ownership of the facilities and infrastructure –or the rights of the institution thereon- ensures the current and potential development of the program, as well as the quality of the education given to the students.

BOX 5:

<i>Facilities to support teaching</i>	<i>Address - enter city</i>	<i>Brief description of each facility</i>	<i>Attention schedule</i>
Laboratories or computer room			
Multimedia rooms			
Library			
Study rooms			
Network access			
Basic science laboratories			
Specialty laboratories			
Others			

- i. **Faculty and students have access to a library provided with the facilities, equipment, expert staff and technical processes allowing giving an appropriate attention. The library is also provided with an information system with network access.**
- ii. **The library has physical and virtual information resources (texts, books, scientific magazines and other necessary materials for the development of the program activities) duly updated, complying with the rights of intellectual property and in alignment with the needs of the graduation profile, the curriculum, as well as the institutional guidelines and principles. Likewise, there are physical spaces available to study, both in individual or group manner.**

- iii. **The program has access to the technological, computing and support resources for the teaching-learning process that are enough in number, quality and updating. Such resources help to develop the pedagogical, disciplinary and professional program activities.**

- iv. **There are the necessary facilities to carry out professional practices, field trips, graduation and thesis work or any other activity included in the curriculum.**

5.b. There are the necessary financial resources for the systematic fulfillment of supply, replacement, maintenance and updating needs of the teaching infrastructure, equipment and resources.

5.c. There is a concern with the presence of an adequate balance between the number of students admitted to each class and the total amount of the resources available, considering its teachers, its infrastructure, equipment and budget.

5.d. There are protocols for universal accessibility and safety that are strictly applied in the learning venues, facilities and resources.

*Present the evidence in a directory or folder named **Criterion 5**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION 6: EFFECTIVENESS AND RESULTS OF THE EDUCATIONAL PROCESS

The program has quality assurance policies and instruments with respect to:

- Admission.
- Teaching-learning processes and evaluation.
- Academic progress towards the graduation.

These policies and instruments are objective, effective and consistently applied with regard to the graduation profile. In addition, the program shows substantive evidence of the compliance of the graduation profile and the graduate attributes.

Consider this criterion to declare the result of the educational process in the three areas indicated. The implemented actions that are declared in the previous criteria, will allow to achieve the results that are declared in this criterion.

6.a. The program has regulations and admission mechanisms explicit and of public knowledge. These norms are applied systematically in admission and are consistent with the requirements of the curriculum. The program explains its special admission system when appropriate.

6.b. The program takes the student's conditions for admission into account with respect to the curriculum requirements and provides leveling resources and activities, when required.

6.c. The program has articulated policies and instruments to:

- I. Strengthen the study habits and techniques of its students.**
- II. Identify any problem of retention and progression in an early stage, applying corrective measures.**
- III. Intervene with assistance strategies, in order to enhance the student results, when appropriate.**
- IV. Set program students apart, as the case may be and according to the current regulations.**

6.d. The program has evaluation instruments applied to the students, allowing to check the achievement of learning objectives defined in the curriculum and in the subject programs. Specially, when the curriculum considers professional internships, the program has designed evaluations in order to measure the depth and extension of the experiences linked therewith which were gained by the students.

Report on the contribution of practical activities to verify the achievement of learning outcomes, in particular explain their contribution to the achievement or measurement of the graduate attributes.

6.e. The program shows that the learning outcomes achieved by the students satisfy those established in the declared graduation profile, and therefore, the graduate attributes. In particular, the evidence shows that students have the ability to solve complex engineering problems, in their field of expertise.

Use evidence from the curricular activities that students develop where they demonstrate their ability to solve complex engineering problems (See definition of Complex Engineering Problem in the Annexes Section of the Master Manual for the Accreditation of Science-Based Engineering Programs, point 11.1. See examples of complex engineering problems in point 11.3 of said Manual) that show that some or more of the attributes are addressed.

6.f. The program has systematic records of the academic performance of its students, who can access to the information on their progress. The program evaluates the progression of all its students in a disaggregated level by location, schedule and modality, when appropriate.

Consider that the concept of "evaluation" includes analysis of the results and decision making when the results are not as expected.

6.g. The program systematically analyzes the reasons for dropout, retention, progression, critical subjects and periods for the student's graduation according to cohorts and, if necessary, defines and applies actions tending to improve, regarding the compliance with the graduation profile and the decision-making capacity with respect to the obtained results.

Base your analysis on Table 3.

Critical subjects: those that the program has defined as such based on a failure indicator that the program itself defines and makes explicit in this report.

6.h. The program students can access to orientation or mentoring mechanisms, when necessary.

Explain whether these mechanisms produce impact on learning or progress of the student, if any.

6.i. The program applies the mechanisms allowing to have information and data analysis on the opinion and track of graduates and employers. Such information is applied to feedback the manner in which the quality assurance policies and instruments are formulated, as well as the graduation profile and the curriculum.

6.j. The program is informed on the occupancy rates and the employability characteristics of its graduated students and applies this information in order to feedback the educational objectives, the graduation profile and the curriculum by doing the necessary adjustments between the imparted education and the requirements of the labor environment.

Consider that this information allows to verify the relevance of the education offered by contrasting it with the educational objectives and therefore, it allows to verify the fulfillment of the institutional mission and the consistency of purposes.

Describe whether the performance of the graduates is related to the professional competences profile of the Master Manual for Accreditation of Science-Based Engineering Programs, Table 11.4, if you have this information.

*Present the evidence in a directory or folder named **Criterion 6**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION 7: CONNECTION WITH THE ENVIRONMENT

The connection with the environment is a key criterion of the labor of the program, directing and strengthening the graduation profile and the curriculum. There is a systematic, meaningful and mutually beneficial interaction with the public, private and social relevant agents of horizontal and bi-directional nature. There are policies and mechanisms for periodic evaluation of the impact of activities related to the environment in all areas of its work: as Academic Unit, in support of student learning or supporting the achievement of institutional purposes.

7.a. The unit develops concrete actions of connection with the environment, which allows knowing the requirements of this, in the disciplinary and professional field that are their own, providing feedback on the graduation profile, curriculum and selection of the faculty.

7.b. The program defines and prioritizes the activities related to the connection with the environment in the interaction fields demanded by the social groups regarding its competence, setting clear objectives of the activities.

7.c. The program facilitates the mutual knowledge among its students and the eventual occupational sources of the profession.

7.d. The unit promotes the connection of the program.

7.e. The unit and the program monitors the activities related to the environment and evaluates its impact in terms of meeting objectives.

*Present the evidence in a directory or folder named **Criterion 7**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. Give your opinion on compliance with the criterion. Justify your answer.

CRITERION 8: ORGANIZATION AND ADMINISTRATION

The unit has an adequate government system and an effective and efficient teaching and administrative management of the resources necessary to fulfill the declared commitments.

8.a. The Unit plans the academic and economic management and has mechanisms that allow to evaluate the achievement of the purposes defined for the program.

8.b. The Unit has a qualified directive body which is well-dedicated in the compliance with the established responsibilities, tasks and assignments.

BOX 6: Detail of the authorities of the Unit and the program, indicating the time dedication to carry out this activity, and their responsibilities, functions and attributions.

Name	Position	Time dedication for the activity	Responsibilities, functions and attributions

8.c. The Unit has administrative, technical and support personnel, duly trained, sufficient in number and with time in relation with the schedule / modality, as to comply properly with the tasks and cover the development need of the curriculum.

List the administrative, technical, and support staff, their preparation qualifications for the position they hold, and their relationship to the total number of students in the program in BOX 7 below. Indicate time commitment in relation to the schedule-modality in the unit in which it is held.

BOX 7:

<i>Name</i>	<i>Position</i>	<i>Time dedication for the activity</i>	<i>Qualifications for the position</i>	<i>Relationship with the number of students in the program</i>

8.d. The program has at least one manager who supervises the assignment of tasks, provision of resources, registration and processing of information for management control, and summons teachers, support staff and other instances that come to teach the program, according to what is established in the curriculum, and to the existing regulations and obligations and the academic offer committed by the Institution in its dissemination activities.

Indicate the director (s) who comply with the indicated, in BOX 8 below:

BOX 8:

<i>Name</i>	<i>Position</i>	<i>Time dedication for the activity</i>	<i>Responsibilities, functions and attributions</i>

8.e. The unit has information systems and academic and administrative management tools appropriate to the management and communication needs in the program.

Present a detail of the information provided by these academic management systems and tools.

8.f. The institution has committed financial resources that guarantee the sustainability of the program and that ensure the projected permanence of the students over time.

Indicate and attach in the Annexes, the documents in which the policies and financial resources indicated are described.

Describe the structure that makes up the financial administration of the Unit and the program. List the main responsibilities.

8.g. The academic unit has an annual budget which is updated and backed up and which it keeping adequate conditions for its operation with efficient budget control instruments.

Explain the mechanisms through which the unit and program budget is established.

How does the program participate in budgeting, and what are the criteria for prioritizing the allocation of resources at this level? How are investment and spending priorities determined?

Describe how the budget of the Unit is assigned and executed. How and under what criteria are modifications made to the initial budget of the Unit? Who approves the modifications?

Indicate how and who performs budget control.

*Present the evidence in a directory or folder named **Criterion 8**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

• **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*

• **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*

• **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

CRITERION 9: SELF-REGULATION AND CONTINUOUS IMPROVEMENT

The unit and the program has the self-regulation instruments. The program performs the self-evaluation processes in a systematic manner and applies the available information derived from effected diagnoses, with the purpose of designing and introducing continuous improvement actions. In addition, the program proves that applies the actions engaged in the improvement or development plans

9.a. The self-evaluation process considers the participation of key internal / external informants -teachers, students, graduates and employers– and the self-evaluation report is known and supported by the program community.

Describe the process from the point of view of continuous improvement.

9.b. The program has the suitable systems allowing to be provided with the valid and reliable information about its different action fields.

9.c. The improvement plan for the program is supported by the institution and unit management body, which is stated in an investment plan with the necessary funding.

9.d. The program consistently meets its established goals, ensuring the quality of the education provided.

*Present the evidence in a directory or folder named **Criterion 9**.*

See examples in Table Annex 1.

a. *Assess compliance with the Criterion:*

- **Meet:** *there is evidence that policies and mechanisms are known and applied systematically by showing results that are reviewed periodically.*
- **Does not meet - in development:** *when there is evidence that policies and mechanisms are known and implemented, with preliminary results, but there is still no evidence that it is systematic.*
- **Does not meet - inexistent:** *the program has defects in its design or does not have formal or systematic policies or mechanisms in its educational process, or there are only statements, but no evidence of its application.*

b. *Give your opinion on compliance with the criterion. Justify your answer.*

2.4. PROGRAM WEAKNESSES

The program will establish its weaknesses based on the analysis on the fulfillment of the criteria that it carried out previously. The weaknesses must be clear and refer directly to the lack of compliance with the evaluation criteria. Weaknesses should reflect the causes of non-compliance.

Examples of well-identified weaknesses:

- The program has not established a systematic mechanism for verifying learning outcomes.
- The program has not implemented actions aimed at improving the graduation rate.
- There is no feedback process from the graduates about their professional performance.
- Communication proficiency in English is highly dependent on electives, so students may not achieve it by taking others.
- The specialty laboratory does not have security protocols that allow teachers or students to face an emergency.

Examples of misidentified weaknesses:

- The dissemination of the graduation profile should be improved.
- Although activities are developed to connect with the environment, these must be improved.
- Students do not know if teachers have access to advanced teaching courses.

2.5. PROGRAM STRENGTHS

The program will establish your strengths, which are distinctive traits. Strengths are not meeting criteria or aspects to consider. Strengths do not influence the accreditation decision, since their existence is not an indicator of compliance with the evaluation criteria.

Examples of well-identified strengths:

- Highlights the high content of practical activities where students propose solutions to complex engineering problems, real and typical of the profession and discipline.
- Employers verify that graduates are innovative and autonomous in the decisions they make.

Examples of misidentified strengths:

- The program has an updated graduation profile that is consistent with the institutional educational model.
- The graduation standards are clear and are known to the students.
- The graduation rate improved from 35% to 41%.

2.6. CONCLUSIONS AND IMPROVEMENT PLAN

Corrective actions and measures applied during the process: explain the improvement actions or mechanisms that were incorporated during the self-evaluation process. The objective at this stage is to show the ability of the program to introduce changes and adapt to them.

Necessary conditions for the application of the actions, planned measures or mechanisms to be established: explain the real possibilities that exist to incorporate the changes projected in the Improvement Plan, otherwise, explain what will be done to do so.

Improvement Plan: The Improvement Plan is understood as a document that formalizes the actions that the program undertakes to develop to resolve the weaknesses detected in its self-evaluation process. It is a guide to the continuous improvement process. This plan establishes duly prioritized actions, reflected through activities, indicating:

- Weakness to overcome
- Actions to implement
- Responsible for guiding each of these actions
- Deadlines for achievement (start and end)
- Goals
- Monitoring indicators
- Resources that the actions will involve (human and economic)

The Improvement Plan must be realistic: the committed actions can be specified and verifiable. The monitoring indicators and goals allow to control the progress in the implementation of these actions. In addition, the person responsible for its achievement must be a visible, explicit person (or group of people). This planning must be consistent with the development plan of the program or the unit in which it is inserted.

Template for improvement plan

Weakness to overcome	Actions to implement	Responsible for guiding each of these actions	Deadlines for achievement (start and end)	Goals	Monitoring indicators	Resources that the actions will involve (human and economic)

The resources involved in the Improvement Plan must be explicitly endorsed and committed by the institution.

2.7. FINAL EVALUATION (Maximun one page)

Incorporate a final conclusion that synthesizes the vision of the program about their ability to self-regulate, which ensures that their students achieve committed learning and are therefore prepared to practice the profession.

ANEXO 1: Examples of evidence to present for the Science-Based Engineering Accreditation

Documentación para evaluar en relación a:	Aspectos a considerar	Ejemplo de evidencias La carrera podrá seleccionar ejemplos desde esta lista o proporcionar otros
Criterio 1: Objetivos Educativos	1.a.	Cuadro de Mando Integral; indicadores y metas; mediciones hechas.
	1.b.	Folletos, afiches publicitarios; Sitio Web.
	1.c.	Plan de desarrollo de la carrera. Resultado de los indicadores y metas; análisis de logro.
Criterio 2: Perfil de Egreso	2.a.	De cómo se aplicó el mecanismo para definir el perfil de egreso: acta de comité; entrevistas y revisión de los resultados; participación de profesores; entre otros.
	2.b.	Estudios comparativos
	2.c.	Resultados de que se consultó a empleadores o se consultó a expertos en disciplinas afines. De cómo esa información se integró al perfil de egreso. De la participación de los profesores en instancias de revisión del perfil: asociado tanto a la disciplina como a la profesión.
	2.d.	Invitación y asistencia de profesores a seminarios de la especialidad. La asistencia se podrá evidenciar con certificados de asistencia o lápices y cuadernos, material del seminario, etc. Análisis de resultado de las actividades de vinculación con el medio profesional: quién asiste y para qué asiste. Actas de focus group con consejos consultivos. Actas de comités curriculares.
	2.e.	Presentación del perfil de egreso completo.
	2.f.	Tabla 1 completa presentando los 12 atributos contenidos en el perfil de egreso y las asignaturas.
	2.g.	<ol style="list-style-type: none"> 1. Foto de Pantalla Sitio Web donde aparece publicado el perfil. 2. Folletos. 3. Afiches. 4. Lo que se utilice como medio de difusión: Agenda, plataforma virtual, etc. 5. Si se conversa del perfil de egreso y se dar a conocer a profesores y alumnos, indicar explícitamente como se hace y dejar respaldo de ese mecanismo.
Criterio 3: Plan de Estudios	3.a.	Tabla 1: Correlación entre las competencias del perfil de egreso, plan de estudios y atributos del graduado.
	3.b.	

	3.c.	Tabla 4 y Tabla 2. Evidencia posible de la medición del logro de los atributos del graduado: Documentos de planificación de la asignatura, de existir. La asignatura anterior v/s la actual. La tarea 3; el trabajo en grupo; el examen final; el Informe final, la práctica intermedia; la práctica profesional; la actividad integradora; el trabajo grupal, proyecto capstone, etc. que mide el atributo específicamente o el diseño de problemas complejos, rúbricas u otros de verificación de los atributos del graduado. Análisis de las rúbricas u otros de verificación del aprendizaje esperado y formalización de mejoras comprometidas. El listado con el resultado final del rendimiento del curso; Otra evidencia de ajustes, de la revisión de los instrumentos de evaluación o de análisis de los resultados de las evaluaciones y de los ajustes realizados y su impacto en la medición de los atributos del graduado.
	3.d.	Convenios de prácticas. En proceso, firmados, N° de alumnos que han participado; evaluaciones de la participación.
		Diseño de las prácticas: el trabajo interno, algún Acta de reunión o apuntes que evidencien que las reuniones se hacen. Diseño inicial/intermedio/final: distintas versiones.
		Instrumentos de evaluación de las prácticas: diseño y posterior uso; mejoras o lo que corresponda.
		Análisis de resultados de las prácticas; evidencia de quienes participan.
	3.f.	Reglamento académico institucional donde se explicita la metodología para cuantificar el trabajo académico real de los estudiantes
	3.g.	Trabajos de titulación de los alumnos en formato digital; Lista de titulados y sus trabajos de titulación.
		Resultados de la evaluación del trabajo o actividad de titulación. Rúbricas o métodos de evaluación que verifican que se consideran los elementos requeridos para un problema complejo de ingeniería.
	3.h.	Ejemplo de programas de asignaturas y sus cambios en los últimos cinco años
3.i.	Focus group; formato de encuesta; resultados; lista de encuestados: análisis uso efectivo en la carrera o cualquier otro método para lo mismo. Presentar asignaturas y/o ajustes antes/después.	
3.j.	Si hay segundo idioma, como la carrera lo ofrece; quienes participan; cuanto tiempo participan; etc.	
Criterio 4: Personal Docente	4.a. 4.b. 4.c.	Currículum vitae de los profesores, especificando aquellos del núcleo de alta dedicación y permanencia. Del último proceso de selección: del proceso de selección; contrato de trabajo; notificación de promoción y comunicaciones a la comunidad; de desvinculación
	4.d.	Del último proceso de contratación: llamado, postulantes, proceso de selección: contrato. Jerarquización y su mecanismo y aplicación. Tabla de evolución de la misma en los profesores de la carrera.
	4.g.	Encuestas; resultados. Antes / después de perfeccionamiento. Política de apoyo al docente en aula, otros similares y su impacto en la docencia.
		Notificaciones al personal
4.h.	Convocatorias a profesores; actas con firmas; mails; otros.	
Criterio 5: Infraestructura y recursos para el Aprendizaje	5.a.	Diseño de actividades de laboratorio Actividades de Laboratorio y su evaluación Libro de clases
	5.b.	Compra de infraestructura: boletas, facturas, lo nuevo, lo antiguo
	5.d.	Fotos

Criterio 6: Efectividad y Resultado del Proceso Formativo	6.a.	Documentos de casos de convalidación o admisión especial
	6.b.	Número de asistentes a nivelación: notas y resultados posteriores
	6.c.	Notas asignaturas antes/después
		Declaración de estudiantes antes/después
		Tasas de retención y progreso antes/después
		Resultados antes/después de las asignaturas con evaluación de los atributos del graduado o resultados de aprendizaje.
		Procedimiento de desvinculación: escanear documentos
	6.d.	Tabla 2 Tabla 4
	6.e.	Instrumentos de evaluación respondidos por los estudiantes en los que se miden los atributos del graduado. Proyectos Capstone o similares.
	6.f.	Visualización sistemas informáticos
	6.g.	Tabla 3
	6.h.	Nombre de los alumnos que han participado de actividades de orientación o tutorías.
6.i.	Fotos, listas firmadas, Videos, otros, de entrevistas, focus group; resultado de encuestas a titulados, que presenten el trabajo de los últimos 5 años. Del trabajo de realimentación al perfil de egreso o del plan de estudios o asignaturas que incorporan estas opiniones.	
	Fotos, listas firmadas, Videos, otros, de entrevistas, focus group; resultado de encuestas a empleadores, que presenten el trabajo de los últimos 5 años. Del trabajo de realimentación al perfil de egreso o del plan de estudios o asignaturas que incorporan estas opiniones.	
	Ejemplos de cambios implementados en el perfil de egreso y/o plan de estudios a partir de los resultados de la consulta a titulados y empleadores.	
6.j.	Tasa de ocupación, entrevistados, listados con teléfono. Lista de lugar del trabajo con nombre y correo electrónico	
	Ejemplos de ajuste a la formación: perfil; asignaturas; cambios antes/después a partir del resultado de las encuestas.	
Criterio 7: Vinculación con el Medio	7.a.	Asistencia a reuniones, seminarios, o eventos relacionados con el perfil de egreso.
	7.b.	Actividades y los alumnos y profesores participan: el gasto; peajes; pasajes; etc. Qué impacto hay en los alumnos: resultado de una encuesta corta.
	7.c.	
	7.d.	
	7.e.	Resultado de la evaluación del impacto de las actividades de vinculación con el medio: más integración del estudiante; encuestas de desempeño de los estudiantes; otros.
Criterio 8: Organización y Administración	8.a.	Reglamento de la unidad y registro de evaluación de resultados.
	8.b.	Currículum Vitae actualizado de los directivos de la Unidad.
		Detalle del Contrato o detalle de la dedicación en horas a la carrera: uso de salas para consultas, atención de alumnos; otros.
	8.c.	Currículum y detalle de contrato del personal administrativo, técnico y de apoyo.
	8.d.	Currículum Vitae del Directivo de la Carrera y evidencia de su trabajo específico: mails de convocatoria; actas, etc.
8.e.	Informes de la Plataforma; capturas de pantalla de las plataformas	

	8.f. 8.g.	Rendición de uso de los recursos: boletas de compras; presupuestos firmados por la autoridad; rendición de gastos; otros similares de que se está haciendo lo programado.
Criterio 9: Autorregulación y Mejoramiento Continuo	9.a.	Fotos de focus group, videos, grabación: lista de entrevistados y sus teléfonos Mails de difusión del Informe de Autoevaluación; fotos de reuniones.
	9.b.	Visualización de la plataforma o sistemas de información utilizados por la carrera: informes de uso común, visualización de pantallas con información.
	9.d.	Evidencia de la aplicación de mecanismos sistemáticos en el análisis de logro de objetivos educacionales v/s propósitos institucionales y perfil de egreso, atributos del graduado y resultados de aprendizaje y de mejoras implementadas y su impacto.

ANNEX 2: Mandatory annexes

1	Institutional Statute or equivalent.
2	Institutional strategic planning.
3	Institutional educational project.
4	Development Plan or Strategic Plan of the unit.
5	Institutional, unit or program regulations, which refer to: Rights and Duties of students regarding: planned academic load, grades, rules regarding admission, inclusion, promotion, permanence and graduation, performance of professional practices, procedures and provisions for approval, validation of previous studies, student behavior, among others .
6	Institutional regulations, of the unit or the program, that regulate the actions of the faculty, technical and administrative personnel.
8	Current regulations governing the program.
7	Graduation regulation.
9	Regulations associated with the selection, hiring, evaluation, promotion and dismissal of faculty. Include here the Hierarchical Regulation.
10	Regulations associated with the evaluation of the activity of the faculty of the program.
11	Regulation of regular admission.
12	Regulation of special admission.
13	Institutional quality assurance policies.
14	Connection with the environment plan.
15	Resolution to create the program.
16	Protocols and documents of universal accessibility to the enclosures and spaces of the program.
17	Budgetary instructions, investment plan, institutional policies for the use of resources.
18	Development Plan of the program or unit where it is inserted.
19	Annual budget of the program, for the last 5 years.
20	Improvement Plan and Investment Plan associated with the program of the last 2 self-evaluation processes, if applicable. Include compliance evaluation.
21	Curriculum, which incorporates at least: Areas, prerequisites, credit per subject, credits per semester, intermediate exits and professional practice requirements, graduation requirements.
22	Subject programs and curriculum.
23	CV of faculty of the program, for the last semester at the end of the self-evaluation process.
24	History of accreditation agreements, when applicable.
25	Dissemination material used in the last 5 admission processes.

TABLE 1: correlation between competences of the graduation profile, subjects and graduate attributes.

- Indicate each of the competences in the graduation profile, include all competences, whether generic or specific. Do not use acronyms, indicate each competence in full.
- In the "subject" boxes, include all the activities of the curriculum: subjects themselves; mandatory internships or work practices; Cycle evaluations, if applicable (for example, "Work Practice 1"; "Exam for Bachelor of Engineering Science", etc.). It is a requirement to indicate the name of the professor who dictated it in the last year of closing the self-evaluation process.
- Check the box where a competence intersects with the curriculum subject or activity that contributes to the achievement of that competence.
- In the column "graduate attributes" identify, for each competence, with which attribute (s) it correlates (eg: competence 1 correlates attributes WA1 and WA3).
- The example uses SCT credit only as a reference. Indicate the system of credits or estimation of the academic load of the students that is effectively used by the program.

Graduation profile competences	Semester in which the subject is taught	Semester in which the subject is taught	Semester in which the subject is taught	Graduate Attributes
	Subject 1 (Teacher's name)	Subject 2 (Teacher's name)	Subject N (Teacher's name)	
	Total credits of the subject	Total credits of the subject	Total credits of the subject	
	Educational area to which the subject belongs	Educational area to which the subject belongs	Educational area to which the subject belongs	
Competence 1				
Competence 2				
Competence N				

Example of filling a table

Graduation profile competences	1st semester	3rd semester	9th semester	Graduate Attributes
	<i>Introduction to Engineering (Liliana Zúñiga)</i>	<i>Oral and written language (Roberto Pinto)</i>	<i>Capstone Project (Carlos Pérez)</i>	
	6 SCT	3 SCT	10 SCT	
	<i>Basic Education</i>	<i>Transversal education</i>	<i>Professional cycle</i>	
<i>C1: Learn about the role of the profession in society and the scope of its impacts.</i>	x		x	WA1: Engineering knowledge WA3: Design / development of solutions
<i>C2: Write reports and other documents clearly.</i>		x		AW10: Comunicación
<i>C3: Design complex systems</i>			x	WA3: Design / development of solutions
<i>C4: He/she joins work teams of his/her own profession or multidisciplinary and is capable of exercising leadership.</i>	x		x	WA9: Individual and team work

TABLE 2: subject folders - evidence of attribute measurement.

Select at least three attributes. And show for each attribute a subject where it is measured, which should be consistent with Table 4:

Attach for each subject:

- Planning.
- Examples of the evaluation instruments where the attribute is measured, answered by the student: the best evaluated, one intermediate and the worst evaluated.
- Evidence demonstrating that the program reviews the results of the attribute measurement and planning to implement improvements, if applicable.

TABLE 3: of enrollment, retention and graduation of the last 10 years

The tables presented below have been designed to enter all the information on enrollment and graduation of the students of a program for each of the locations where the program is taught, including the schedules.

Acredita CI considers that the information presented in this way, allows to clearly visualize the progress of the students along the path of the program, which allows a complete analysis of it and thus visualize the results of the improvement actions that the program could have been incorporating.

This table is published on the Agency's Website:

<https://acreditaci.cl/en/engineering-accreditation/manuals-and-forms/>

Examples⁴:

Table 4: Total retention of students according to cohorts and schedule

Cohort year	Schedule	Enrollment	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
2009	Daytime	180	140	125	50	27	10	2	0	0	0
	Afternoon	80	65	63	24	8	1	0	0	0	0
2010	Daytime	180	144	131	32	27	10	1	0	0	0
	Afternoon	80	75	74	19	11	0	0	0	0	0
2011	Daytime	230	183	168	68	30	10	2	0	0	0
	Afternoon	85	65	63	24	8	1	0	0	0	0
2012	Daytime	230	187	174	51	30	10	1	0	0	0
	Afternoon	85	75	74	23	5	0	0	0	0	0
2013	Daytime	230	187	174	88	30	10	0	0	0	0
	Afternoon	85	75	74	37	11	0	0	0	0	0
2014	Daytime	225	187	174	53	30	10	0	0	0	0
	Afternoon	85	75	74	20	11	0	0	0	0	0
2015	Daytime	229	195	189	65	18	0	0	0	0	0
	Afternoon	85	83	30	8	0	0	0	0	0	0
2016	Daytime	230	200	189	61	0	0	0	0	0	0
	Afternoon	125	120	113	38	0	0	0	0	0	0
2017	Daytime	230	211	158	0	0	0	0	0	0	0
	Afternoon	124	115	108	0	0	0	0	0	0	0
2018	Daytime	230	208	0	0	0	0	0	0	0	0
	Afternoon	125	110	0	0	0	0	0	0	0	0
Totals	Daytime	2.194	1.842	1.482	468	192	60	6	0	0	0
	Afternoon	959	858	673	193	54	2	0	0	0	0

⁴ Please consider a period of 5 years in the tables requested. What is presented is an example of the required data.

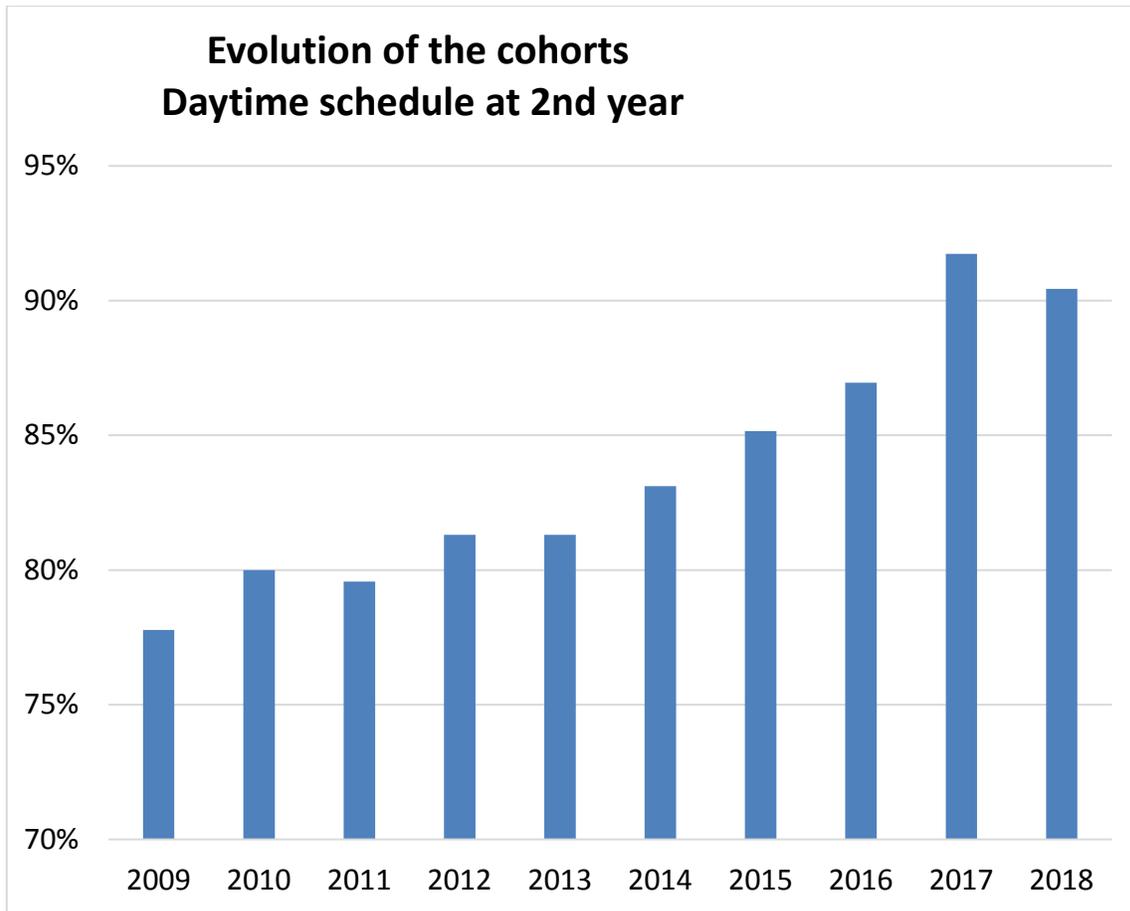


Table 14: Total graduation of students according to cohort and schedule

Cohort year	Schedule	Enrollment	4th year	5th year	6th year	7th year	8th year	9th year	10th year	11th year	12th year
2006	Daytime	80	0	15	40	0	0	0	0	0	0
	Afternoon	45	0	30	13	2	0	0	0	0	0
2007	Daytime	80	0	40	14	8	5	0	0	0	0
	Afternoon	50	0	20	18	6	1	0	0	0	0
2008	Daytime	100	0	45	10	3	0	0	0	0	0
	Afternoon	50	0	10	30	6	0	0	0	0	0
2009	Daytime	180	0	25	90	22	15	0	0	0	0
	Afternoon	80	0	19	30	18	0	0	0	0	0
2010	Daytime	180	9	90	11	10	0	0	0	0	0
	Afternoon	80	0	30	28	13	0	0	0	0	0
2011	Daytime	230	21	102	28	17	3	0	0	0	0
	Afternoon	85	10	59	7	1	0	0	0	0	0
2012	Daytime	230	45	105	26	13	0	0	0	0	0
	Afternoon	85	30	13	18	5	0	0	0	0	0
2013	Daytime	230	37	97	48	0	0	0	0	0	0
	Afternoon	85	32	24	18	0	0	0	0	0	0
2014	Daytime	225	70	72	0	0	0	0	0	0	0
	Afternoon	85	32	25	0	0	0	0	0	0	0
2015	Daytime	229	80	0	0	0	0	0	0	0	0
	Afternoon	85	35	0	0	0	0	0	0	0	0
TOTALS	Daytime	1.764	262	591	267	73	23	0	0	0	0
	Afternoon	730	139	230	162	51	1	0	0	0	0

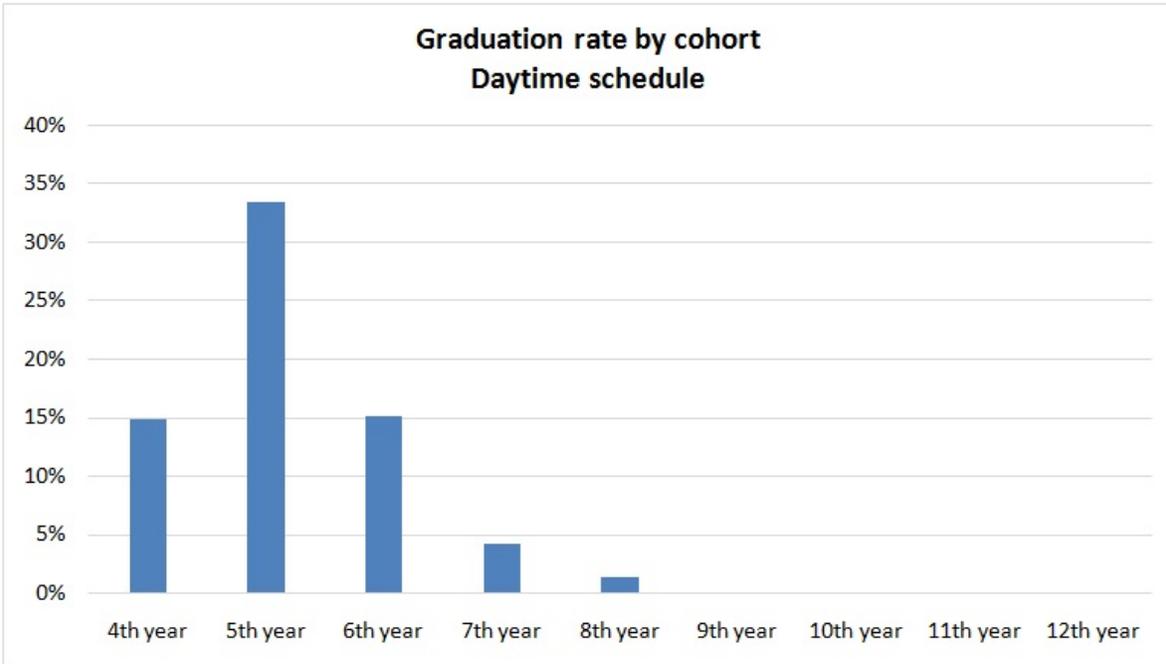


TABLE 4: of graduate attributes and of the subjects.

Detail the contribution of the subjects and / or activity of the curriculum, to the graduate attributes, following the example presented below.

C: contributes - activities conducive to the development of the attribute are carried out.

I : Incorporating – the attribute has recently been incorporated into the curriculum.

M: measure – in the subject the attribute is specifically measured in student learning.

Curriculum		Graduate Attributes											
		WA1	WA2	WA3	WA4	WA5	WA6	WA7	WA8	WA9	WA10	WA11	WA12
Semester 1													
	Subject 1	C											
	Subject 2		C										
	Subject 3	C					C			C			
	Subject 4						C						
	Subject 5					C							
Semester 8													
	Subject 36	C											
	Subject 37		C					I					
	Subject 38		C	C		C	C						
	Subject 39		C	C					C	C	C	C	
	Subject 40				I				C	C		C	
Activity	Practice activity semester 8		M							M			M
Semester n													
	Subject x	M		C									
	Subject y				I	C							
	Subject z							I	C				
	Subject x1						C	C					
	Subject x2				I	C							
Final activity	Final project – capstone- other			M		M	M	M			M	M	

Use this table to assess the program of compliance with Criterion 3, aspect 3.c.