SINAES

Handbook on Official Accreditation of Postgraduate Programs of the National System of Accreditation of Higher Education in Costa Rica

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National Accreditation Council

Guillermo Vargas Salazar –President

Dr. Sonia Marta Mora Escalante-Vice-President
Álvaro Cedeño Gómez, MBA
Dr. Juan Manuel Esquivel Alfaro
Rodolfo Herrera Jiménez
Dr. Guido Miranda Gutiérrez
Dr. Carlos G. Paniagua Gamboa
Arturo Jofré Vartanián, MBA

Direction of SINAES

Rosa Adolio Cascante, M.Sc. –Director

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Chapter I

The National System for Accreditation of Higher Education in Costa Rica (SINAES)

The National System for the Accreditation of Higher Education (SINAES, Spanish acronym) is the official body for the accreditation of higher education in Costa Rica. It is national in scope and was created through Law of the Republic № 8256 of 2 May 2002. Due to its legal character, SINAES is part of the State university higher education system, is absolutely independent and autonomous in its academic decision making, and possesses top governmental authority with respect to the accreditation of university degrees and programs.

Law N° 8798, the "Law on Strengthening of the National System for Accreditation of Higher Education" (SINAES) was approved in 2010. This law establishes new competencies for the System and in its articles includes elements expected to fuel a considerable increase in demand for accreditation in the medium term and therefore for all of the System's current tasks. According to Law 8798, the new competencies are the following:

- SINAES may accredit the professional study programs of technical institutions (prior legislation only permits accreditation of university degrees and programs)
- SINAES may accredit institutions (both university and technical institutions). Prior legislation did not cover institutional accreditation.
- The criteria and standards defined by SINAES for accreditation of university and technical programs and institutions will be of official character as a means of regulating national academic quality.

This law also establishes public policy guidelines aimed at deepening quality assurance in higher education from civil society. It thereby establishes:

- That the State and its institutions are authorized to establish in competitive processes the necessary conditions to differentiate among graduates of SINAES-accredited study programs; and
- State ratification that official accreditation by SINAES is of national public interest.

Costa Rican public and private universities that have satisfactorily met the requirements established in SINAES's internal regulations are affiliate members of the National Accreditation System.

1.1   Mission

SINAES's mission is to promote the quality of Costa Rican higher education, and consolidate in it a vigorous culture of quality and continuous evaluation. To this end, SINAES fosters forums of academic investigation, joint analysis, discussion and information about Costa Rican education and society for the national community, and conducts processes for official accreditation of the academic quality of institutions, professional degrees and programs submitted to it- for this purpose, and in pursuit of a better quality of life for all inhabitants of the Republic- by public and private institutions of higher education in Costa Rica.

1.2 Vision

SINAES is the authorized agency responsible for official accreditation of the quality of Costa Rican higher education. Because its criteria and rules embody national standards on academic quality, SINAES has been established as the national point of reference concerning the quality of the institutions, professional degrees and programs of higher education in the country. Its actions effectively contribute to the achievement, certification and observance of principles of excellence in the academic activities of Costa Rican institutions of higher education.

1.3 Values

Excellence: We carry out our individual and collective work with optimal levels of quality that lead to the successful achievement of the institutional mission, objectives and goal, in the framework of an evaluative and proactive culture that foments continuous improvement in and outside the institution.

Integrity: We act with absolute academic impartiality, independence and autonomy, rectitude, rationality, coherence and precision in an atmosphere of transparency, responsibility and rigorous compliance with the law.

Social responsibility: We pledge a commitment to Costa Rican society and to educational quality that goes beyond the achievement of institutional objectives, toward attention to national needs and transparent and timely accountability.

Respect: Our personal and institutional relations are established with consideration and respect. We especially make allowance for the particularities and specific conditions of others, in a climate of acceptance of differences and collective growth.

Leadership: We procure and orient joint and innovative efforts of support and shared growth that foment the quality of Costa Rican higher education and its official accreditation.

1.4 Ends

To plan, organize, develop, implement, supervise and monitor an official accreditation process that continuously ensures the quality of the degrees, study plans and programs offered by institutions of higher education, and safeguards confidentiality in the handling of each institution's data.

1.5 Objectives

1. To assist in the fulfillment of principles of academic excellence and in the continuous effort of public and private institutions of higher education to reach higher and better ranges of quality in the academic plans, professional degrees and programs they offer;

2. To demonstrate to institutions of higher education the institutional advantageousness, transcendence, trust, social credibility and benefits of growth in the quality of degrees, which entails participation in the official accreditation processes that these institutions are conducting together with SINAES;

3. To provide the national community authority attesting to the quality of the academic degrees and programs and Costa Rican institutions of higher education subjected to the official accreditation process and, with the issuance of this official certification, further society's trust in the quality of those institutions, degrees and programs, as well as providing the population guidance in selecting the best academic options of higher education offered in the country;

4. To recommend action plans to remedy problems, weaknesses and gaps identified in the processes of self-evaluation and outside evaluation. These plans shall include the institutions' and programs' own efforts, and mutually supportive actions between the institutions of higher education and members of SINAES.

5. To attain international recognition and accreditation of the quality of the criteria and procedures established and executed by SINAES;

6. Through official accreditation of university programs and degrees with high-quality criteria and internationally accepted and recognized procedures, to pursue the possibility of mutual recognition of its accreditations by other foreign official agencies of proven quality, thereby facilitating academic mobility and professional recognition; and

7. To form part of international academic and accreditation entities and networks of recognized and consolidated prestige as a full member.

1.6   Strategic Pillars

- Promotes the evaluation and quality of the institutions, degrees and programs of Costa Rican higher education in both adhering and non-adhering universities, for which purpose it establishes– in consensual form– a general framework of basic criteria and standards of optimal yet feasible levels in Costa Rican higher education, in accordance with the characteristics of the different disciplinary areas and congruent with internationally recognized standards

- Respects the academic models and management styles of the different institutions, degrees and programs; encourages innovation and flexibility– understood as creative response pertinent to the

circumstances arising from a dizzying acceleration of change– and understands, studies and addresses the various forms of development in differing institutions

- Drives participatory processes for improvement in the quality of higher education. Provides all of Costa Rican society– including the institutions themselves– with official, current information on the state of the quality of higher education in the country in relation to international standards, for which purpose it generates innovative investigations in this sphere

- Promotes the internationalization and international recognition of official accreditation of the quality of Costa Rican higher education, while also strengthening the autochthonous model of Costa Rican higher education and society through a framework of criteria and standards generated on the basis of our own situation

1.7   Competencies of SINAES: universe, sphere, scope and levels

- Its universe of competencies is defined in the agreement on its constitution in 1993 and the amendment to that agreement in Law 8256 of 2 May 2002 and its amendments, and in Law 8798, addressing all of the professional degrees, postgraduate programs and public and private institutions of higher education formally comprising SINAES.

- Its sphere of operation is Costa Rican, and it has the power to sign cooperation agreements or contract the remunerated provision of technical/academic services with other entities and public and private bodies in general, either national or foreign, as well as to form part of networks, institutions and international accreditation agencies of recognized prestige.

- Its non-delegable powers extend to granting official national accreditation based on the accreditation model established by SINAES. Elsewhere, its character as agency whose quality has been internationally recognized and accredited by the Central American Council on Accreditation of Higher Education (Consejo Centroamericano de Acreditación de la Educación Superior - CCA) and certified by the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), provides it with the facilities to sign cooperation agreements and recognition agreements with its counterparts.

- Its action in higher education is at the undergraduate, graduate and postgraduate levels, as well as in institutional evaluation and the definition of national academic standards.

1.8   Structure of SINAES

1.8.1 The National Accreditation Council

The National Accreditation Council is the top decision-making body of SINAES. Its eight members are individuals with a distinguished academic and professional career in different areas of knowledge. Four are proposed by adhering State universities and four are proposed by the rectors of private adhering universities. Council members do not represent universities; they enjoy total independence of opinions and decisions issued in the exercise of their function. As the top authority of SINAES, the National Accreditation Council establishes policy and makes strategic decisions related to the System. It is responsible for verifying compliance and improvement at all stages of the accreditation and re-accreditation process, as well as the non-delegable authority to make final decisions on granting official accreditation of professional degrees and programs submitted to the process.

1.8.2 The Executive Directorate

The Executive Directorate is the entity that executes Council decisions and as stipulated by it, carries out the direction, general coordination and supervision of all processes.

1.8.3 The Organizational Structure

It has a matrix structure, aiming at streamlined, flexible and efficient response to achieve the ends, principles and objectives established in strategic planning, making it possible to attend the different tasks by assigning ideal human resources to the multidisciplinary teams formed for the project or action to be carried out.

Chapter II

Framework of Reference for Official Accreditation Processes

2.1　Official Accreditation of Institutions of Higher Education

As the only entity empowered to do so through two laws of the Republic, SINAES's awarding of the condition of **officially accredited** to a postgraduate program through regulated joint processes of self-evaluation and outside evaluation constitutes public acknowledgement unequivocally indicating that the postgraduate programs of Costa Rican institutions of higher education provide a quality educational service and have a demonstrated commitment to continuous improvement.

Self-evaluation and outside evaluation make up part of the official accreditation process and must be carried out observing the criteria and standards established by the SINAES National Accreditation Council previously agreed with adhering institutions of higher education, and internationally recognized and accepted.

The declaration of ***publically attested quality*** entailed in SINAES's official accreditation of the professional postgraduate degree or program constitutes an invaluable instrument legitimizing institutions of higher education before Costa Rican society and the international academic community, as well as a guarantee of excellence for the beneficiaries of their services.

Participation in a process of ***official accreditation*** involves joint and ongoing action by the university and SINAES aimed at higher ranges of quality in responsible exercise of its autonomy that nourishes institutions of higher education with valuable elements to better fulfill their responsibility of self-regulation and improvement of their quality by remedying weaknesses and fortifying the strengths of their academic offering.

Because this is essentially a joint and ongoing process in the pursuit of excellence, ***official accreditation*** by SINAES is a valuable instrument for feedback, enrichment and encouragement of the comprehensive tasks of improvement carried out by institutions of higher education.

The ***official accreditation*** process corresponding to SINAES under national law has the following fundamental characteristics:

- Criteria previously established by the SINAES National Accreditation Council, validated together with the adhering institutions of higher education, agreed beforehand and internationally recognized and accepted.

- Respect for the diversity of university management styles

- Carefully considers and addresses the diversity, complexity and autonomy of the institutions of higher education

- Particularly takes into account the specific nature and discipline of each professional degree or academic program submitted for official accreditation

- The certification extended is of temporary nature open to re-accreditation.

Official accreditation of postgraduate programs constitutes an ongoing process that regularly includes two fundamental stages: self-evaluation and outside evaluation.

Along with these stages is one of advising and support, called an initial stage, corresponding to information, encouragement, awareness and internal reflection by the academic community about the postgraduate program, the consensuated decision on participation and endorsement of the authorities in charge of the institution of higher education, and a final stage of executing the improvement actions that may be necessary, based on the self-evaluation and outside evaluation. The institution agrees to these contractual obligations in the Improvement Pledge that its authorities sign and SINAES, with the objective of overcoming weak areas and enhancing strengths.

2.2 The Evaluation Process for Accreditation Purposes

2.2.1 Self-Evaluation

For the self-evaluation—made with the accompaniment of SINAES if the postgraduate program so requests—the criteria and proof indicated in the Evaluation Model are necessary, required and obligatory points of reference. At this stage, the university community of the postgraduate program conducts a study involving participatory and active reflection with itself as the subject of study, and explores, analyzes, diagnoses, verifies, describes and assesses the situation in each of its organic, academic and administrative structures. In this way, "the consolidation of a culture of evaluation of quality is a basic premise of all institutions of higher education committed to continuous improvement and the pursuit of excellence. In this sense, self-evaluation must be an ongoing practice permitting a critical look at how institutions and programs carry out all academic processes so as to assure the quality of the services they offer." (CNA, 2010)[1]

For the postgraduate program, the self-evaluation stage is a look at oneself in the mirror in light of two obligatory points of reference:

- It compares its purposes, actions and achievements with the mission, objectives and main proposals of the university and the program.

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[1] CNA (2010). Lineamientos para la Acreditación de Alta Calidad de Programas de Maestría y Doctorado. Consejo Nacional de Acreditación, CNA: Colombia.

- In a very special, mandatory and particularly significant way, it analyzes and evaluates its ordinary activities in light of the quality criteria and theoretical/methodological elements officially established by SINAES.

The self-evaluation must be made with the active and critical participation of the entire academic community: authorities, educators, researchers, students, administrative employees and indirect stakeholders such as graduates, employers, professional associations, and others.

The information obtained during the self-evaluation stage must be pertinent to the criteria established by SINAES. It must be the product of a systematic collection of information enabling a rigorous and valid understanding of the elements that are evaluated.

Internal sources of information are the academicians, students, administrative staff, files, databases, institutional statistics and different university support dependencies. The outside sources of information are employers, professional associations, pertinent trade organizations and the users of the services that graduates offer, among others.

The conclusions reached at the end of the self-evaluation stage must be based solidly on objective methods and data clearly identifying the actual strengths and weaknesses of the postgraduate program. These conclusions constitute a valuable instrument for subsequently defining, together, specific proposals for continuous improvement that will allow the postgraduate program to remedy its weaknesses and anchor its strengths, hence assuring high levels of quality in the education it offers.

This stage has a fundamental value in the conceptualization, comprehension and acceptance of evaluation as a way of knowing, learning about and relating to the situation in order to promote substantive changes for improvement of quality. In consequence, its most important result is a significant improvement in the quality of the study program. Self-evaluation is the heart of the improvement process.

Once the self-evaluation has concluded, the postgraduate program prepares a *Final Self-Evaluation Report* and presents it to the SINAES National Accreditation Council. This report should be clear, well written, organized, and focused on substantive aspects in a comprehensive and uniform manner, not merely a juxtaposition of documents. It must also be complete, substantiated, documented, concise, concrete, balanced and candid, with a description of the information sources and analytical methods employed.

The *Self-Evaluation Report* must include a complete description of the situation found, specify and analyze the results obtained, the strengths and the weaknesses of the postgraduate program detected in light of the quality criteria established by SINAES as well as the institutional ends and mission, and sketch out orientation regarding the changes required.

The **Self-Evaluation Report** must essentially be analytical and therefore include elements of broad analysis, reflection and assessment regarding the program's compliance with the criteria and standards established by SINAE.

It is the responsibility of the postgraduate program and the submitting university institution to ensure that the report has been carefully prepared based on an open and participatory process that meets the necessary conditions for its submission to a process of outside evaluation. A poorly prepared Self-Evaluation Report will signify that at the moment of the outside evaluation, peer evaluators will not have the complete information to assess and make a judgment about the quality of the postgraduate program, a situation that could affect the final decision on accreditation.

The Self-**Evaluation Report** must incorporate a preliminary **Improvement Pledge**, which is a project prepared in detail by those responsible for the program and includes all of the actions aimed at aspects in the self-evaluation identified as *weaknesses*, led to a situation in which this condition decreases significantly or disappears. In this way, the **Improvement Pledge** constitutes a means to move from the current situation of the study plan or program to a future situation in which strengths are preserved and enhanced, and weaknesses are overcome. For this reason, it must be prepared with a sense of realism, meaning that the propositions it contains must be attainable in terms of costs, timeframe and resources, as well as being technically, economically, legally and politically viable. This document must have the explicit commitment of all actors and be signed by the Rector and program authorities. In terms of the institutional framework, the **Improvement Pledge** should be integrated in the university's strategic planning, in the annual operating plan and in the budget of the unit to which the program belongs.

2.2.2 The Outside Evaluation

The outside evaluation involves a process of analysis, reflection, assessment and validation by international and national peer evaluators based on two main sources:

- The information about the methodology, participants and activities carried out during the self-evaluation, the Self-Evaluation Report, the Preliminary Improvement Pledge document and all of the documentation referring to the postgraduate program and, in the case of previous accreditation processes, the progress obtained.

- The actual evaluations, assessments, findings and validations made by the international and national peer evaluators *in situ* concerning the different elements making up the postgraduate program

This stage of the official accreditation process occurs after the self-evaluation and corresponds to the assessment made regarding the quality of the postgraduate program by a team of "outside academic peers" unconnected with the institution to which the postgraduate program belongs. These

professionals are identified by the academic-professional community as persons of recognized prestige with experience in teaching, research, outreach, linkage and management of higher education, and having the authority to judge and give their opinion on the quality of the study plan due to their academic standing and wealth of professional experience, these being conditions lending greater objectivity and credibility to the evaluation performed. They are individuals with great academic experience, independent, have no conflicts of interest with the program or university, are respected, have an unblemished ethical reputation, possessing high professional standing and leadership in their field and with the capacity to communicate fully in the Spanish language. In accordance with common practices of the different accreditation systems in the international arena, SINAES combines the presence of national and international peers with academic formation in the academic discipline corresponding to the program to be accredited. This fosters a collegiate and impartial vision of the program evaluated. The team of outside peers is formed so as to cover the following aspects: elevated academic formation in the corresponding discipline (doctorate), experience in institutional or program evaluation, working experience in the profession, and experience teaching in private and public universities.

Their work is performed in the context of the institutional mission, principles, functions and achievements, and also the quality criteria and standards established by SINAES and internationally recognized, with very particular consideration of the training requirements inherent to the specific discipline to which the program belongs, as well as the actual characteristics of the program in its sphere of action (academic and professional).

This stage includes a prior documentary evaluation by the peers, so they receive and analyze the self-evaluation report, the preliminary improvement pledge and any other pertinent documentation. The function of the outside peers is to validate the self-evaluation process, to verify the objectivity, veracity and quality of the self-evaluation process and its results, and to issue a report to the SINAES Council. During this stage the outside peer evaluators send SINAES a preliminary report based on their documentary analysis.

Subsequently, the parties (outside peer evaluators, SINAES and program authorities) agree on the date of the visit *in situ*, where the peers will have the opportunity to see the facilities, meet with authorities, conduct individual and group interviews with students, graduates, academic personnel and administrative staff. They may also ask to review exams, theses and any other document they feel contributes elements for assessing the postgraduate program and verifying self-evaluation results. On the part of the outside peer evaluators, this stage also includes an analysis of the ***Improvement Pledge prepared by the postgraduate program*** in its self-evaluation process.

Once the outside peer evaluators conclude their visit, from their countries and with the virtual advising of specialists in the Academic Management Area of SINAES, they prepare the ***Final Outside Evaluation Report*** that must be presented to the National Accreditation Council no later than fifteen days after the conclusion of the visit. With prior knowledge and approval of the National

Accreditation Council, this report is sent to the authorities of the postgraduate program for their analysis and enrichment of the *Final Improvement Pledge* that the postgraduate program must submit to SINAES. The basis of this document should be the PRELIMINARY Improvement Pledge that was prepared at the end of the self-evaluation phase, enhanced with the contributions of the outside peer evaluators and the National Accreditation Council. It constitutes a highly valuable input for making the final decision on accreditation of the study plan or program. For each of the weakness detected, it includes the objectives, goals, actions, parties responsible and time available to remedy them, expected results, time periods, resources and success indicators.

The end result of this stage is the final assessment of the quality of the postgraduate program by the SINAES National Accreditation Council, as non-delegable task and responsibility, through a process of triangulation that contemplates the Self-Evaluation Report, Outside Evaluation Report, Improvement Pledge, specialized reports and technical recommendations, and any other information obtained throughout the different stages and activities of the official accreditation process. Based on this valuation, the SINAES National Accreditation Council meets formally to decide whether to assign the postgraduate program official accreditation, and establishes the conditions on which this is granted.

For this analysis, the evaluation model for purposes of postgraduate accreditation entails three spaces of analysis. **The first** occurs prior to the self-evaluation process, wherein the program and the institution[2] assess the weight of each dimension, component and criteria in relation to its mission, vision and objectives. In this assessment, it is important to consider whether the program leads to a doctoral degree, academic masters or professional masters. This is because components and criteria, all important from a standpoint of program quality, impact differently on the development of the institution of higher education and on its postgraduate programs, in particular. This ranking must be done before embarking on a rating of program performance with respect to each one of the elements comprising the model. The relative importance of the components, established before the evaluation, defines their impact on overall program quality. The weighting results from a qualitative analysis of the impact of each component and criterion within a totality, determined by the program's nature and by an institutional project that responds to ideas about the society, the culture and higher education. The weighting is aimed at recognizing the relative importance of the elements that are synthesized, but cannot turn the qualitative into an operation of quantities. It is a mechanism for differentiating specificities, and is also a guide for reading the interpretations made of the information gathered.

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[2] The institution as a whole will assess these variables of analysis just once in relation to all of the postgraduate programs. In light of this assessment, as they decide to evaluate themselves for purposes of accreditation, the programs will define their own valorization in light of the one already made by the institution.

The second space is that involving the outside peers of the postgraduate program, the outside evaluation of the study plan made at the request of SINAES. This second moment is therefore complementary to the one the university institution and program carried out. This is because, as indicated, evaluation of quality in the field of accreditation is a second stage based on the interpretive assessment of that quality by the outside peers.

Finally, based on the agreement of the national and international stakeholders and with international points of reference, depending on whether it is a doctoral degree, academic masters or professional masters, SINAES has awarded a weighting to each component and criteria, assigning each one a relative weight within the whole that will reflect their importance in the country. This therefore represents its aspiration – the ideal. This aspiration is the *third space of analysis*, which is done by the National Accreditation Council in light of all the relevant information in the stages of self-evaluation and outside evaluation.

This interpretive process in all of the instances (program, outside peers, SINAES) will make it possible to assign a score to each criterion expressing the degree to which a program approaches the optimum quality that can be set out for that criteria. The scoring cannot be considered a quantitative indicator. It is a way of expressing the degree to which a program approaches its optimal quality. In this sense, the final assessment of SINAES is not based on the weights and scores of each criterion, although it includes them.

Accreditation of postgraduate programs is granted for a duration ranging from two to eight years, depending on the extent to which criteria are met.

During the period for which official accreditation is granted to the postgraduate program, the SINAES Council reserves the right to revoke this accreditation if substantial changes take place adversely altering the conditions on which the accreditation was based, or if there is verified noncompliance with the terms of the Improvement Pledge within the periods stipulated.

2.2.3 Official Reaccreditation of Postgraduate Programs

SINAES understands the concept of official reaccreditation as the act of renewing the condition of the official accredited postgraduate program for a new period. Inasmuch as this is a cyclical process, it signifies newly submitting to the accreditation process once the official accreditation period is over.

Reaccreditation thus means that postgraduate programs will have to carry out a new self-evaluation process certifying the current condition in light of the changes and improvements obtained during their accreditation period. Hence, the aim is for the postgraduate program to be capable of conducting continuous analysis and implementing quality processes in constant attention to its needs concerning different external and internal requirements, as well as societal transformation.

Reaccreditation therefore involves the postgraduate program's capacity to clearly and transparently show the progress gained in quality, taking into account its situation when accredited in the previous process. A comparative analysis must therefore be made between the previous and current self-evaluation process.

Chapter III

The Evaluation Model for
the Postgraduate Program

3.1 Postgraduate Evaluation and Accreditation

3.1.1 Importance of Postgraduate Evaluation and Accreditation

Institutions of higher education have played a fundamental role in development. The substantive work of universities has been marked by the generation of new knowledge; the transmission, conservation and re-creation of knowledge; and its application in different arenas, generating an important tradition of outreach in society. With the advance of the knowledge society, however, new demands emerge. These new needs are related to the social, cultural and productive factors characterizing new trends and which are expressed, among other ways, as transformation of the job market and the corresponding demand for new professional profiles. In the same way, pressure arising from the existence of more individuals with graduate-level degrees (massiveness) also causes expansion of demands as a need for "differentiation," which becomes an important motivation for the promotion of postgraduate studies.

Postgraduate is different from graduate, not only in its forms of access but also in its academic groups, in scientific specialization and in investigative training. In this sense, postgraduate formation provides society with the human resources required to feed the formation needs of both the productive/technological sector and the scientific system. In this sense, postgraduates permit the formation of areas of knowledge, producing greater stimuli as consequence of the value that the postgraduate adds, mainly due to the relation with investigation. The postgraduate facilitates a solution to the almost permanent dilemma between professional teaching and scientific formation that universities have had to face.

The Regional Conference on Higher Education held in Cartagena de Indias in June 2008 confirmed the importance of strengthening accreditation mechanisms ensuring transparency and the condition of public right to higher education, given the task of continuing to expand coverage. At the postgraduate level, the strengthening of evaluation and accreditation processes responds (among other issues) to recognition of the strategic character of that level of formation for scientific development and the exchange of faculty, and its importance as space for the formation of a critical mass in specialized thematic fields. It also responds to the need to generate or strengthen mechanisms making it possible to ensure the quality of greater academic formation in times of expansion (proliferation of institutions, increase in enrollment, diversification of programs and institutions, and entry of transnational offerings). Indeed, the declaration of the Regional Conference states that "Postgraduate formation is indispensable for the development of scientific, technological, humanistic and artistic development based on rigorous quality criteria. Postgraduate studies must be based on active lines of investigation and intellectual creation to ensure they promote the highest

professional qualifications and continuous formation, effectively contributing to the generation, transformation and dissemination of knowledge" (CRES, 2008)[3]

The National System of Accreditation of Education in Costa Rica (SINAES) has been working in the framework of the Ibero-American Network of Accreditation Agencies (Red Iberoamericana de Agencias de Acreditación) on harmonizing criteria for experimental regional accreditation in the Ibero-American Region. Along with Costa Rica, Colombia, Argentina, Chile, Brazil, Mexico and Spain have participated in this project through their agencies.

3.1.2 Essential Characteristics of Masters and Doctorates

The minimum quality conditions of masters and doctoral studies help strengthen bases of national capacity for the generation, transference, appropriation and application of knowledge, as well as deepening and maintaining current the disciplinary and professional knowledge imparted in postgraduate programs. Likewise, these studies must be spaces of methodological and scientific renovation and updating that contribute to the consolidation of scientific and academic communities in their respective fields (CNA, 2010).

The Evaluation Model for the accreditation of postgraduate programs is an instrument to be utilized by professional and academic masters and doctoral studies. It is important to consider the fundamental characteristics of these levels at the moment of evaluation.

The **professional masters** aim to delve deeper into areas of knowledge and permit the development of competencies. Their focus is the solution of problems or analysis of a particular situation of disciplinary, interdisciplinary or professional nature through the assimilation or appropriation of scientific, technological or artistic knowledge, methodologies and development. Amongst other possibilities, the thesis is aimed at case studies, concrete problem-solving or analysis of a particular situation.

For their part, the purpose of the **academic masters** is the development of competencies permitting active participation in investigation that generates new knowledge or technological processes. The thesis for these degrees must reflect the acquisition of scientific competencies required of an academic researcher, which can be deepened in a doctoral program.

The **doctoral program** is the postgraduate academic study plan that grants the highest educational degree, which ensures formation and competence for high quality academic and investigative exercise. The objective of doctoral programs is the formation of researchers with the capacity to carry out and orient academic and research processes autonomously in the specific area of a field of knowledge. It is therefore expected that doctoral theses contribute in an original and significant way to the advance of science, technology, humanities, arts and philosophy.

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[3] See Declaration of CRES at www.cres2008.org or www.iesalc.unesco.org.ve

Both the academic masters and doctorate are distinguished from the professional masters by their requirements in terms of investigative competencies and the research capacity developed in the student.

3.1.3 The Evaluation Model for Postgraduate Accreditation

In Costa Rica accreditation is a voluntary mechanism whose objective is the continuous pursuit of highest levels of quality by the institutions that are part of the system. For evaluation to fulfill its purpose, it must be a systematic and comprehensible process. This requires the existence of an evaluation model able to serve as an epistemological and methodological framework of reference to facilitate convergence and comprehension of the subject of analysis, interpretation of what is observed and judgment or assessment of the subject in light of the model as pre-established point of reference.

To assess the quality of the program, SINAES builds on RIACES discussions and in particular those of CNA in Colombia, which has successfully implemented accreditation of postgraduate programs based on these discussions. In this way, the concept of **quality** is that of "foundation of the theoretical/methodological model wherein the quality of an institution or a program alludes to the realization of its concept, which must refer to the universal characteristics of higher education in general, to generic characteristics corresponding to the ideal prototype defined historically for this type of institution, and any specific inherent characteristics depending on its mission, field of action and objectives. Hence, the concept of quality in higher education refers to the synthesis of characteristics making it possible to recognize an academic program or an institution and make a judgment about the relative distance between the way in which that institution or academic program provides said service, and the optimum corresponding to its nature. Thus understood, quality involves the continuous effort of the institutions to responsibly meet the inherent demands of each one of its basic functions: research, teaching and social outreach." (CNA, 2010)

The model of evaluation for purposes of postgraduate program accreditation therefore lies in evaluative units that inspire appreciation for the conditions of the institution and the postgraduate program under analysis. These evaluative units are considered a whole (integrated concept of quality); consequently there is no hierarchy among them or inclination toward one over another. They complement and empower one another in terms of criteria serving as the foundation for judgment about quality. These units are (CNA, 2010):

1. *Universality*. This refers, on one hand, to the most intrinsic dimension of the regular activities of an institution that provides a higher level educational service, that is, to further human knowledge that, through the fields of action indicated in its creation, serves as the basis of its identity. In any type of institution, academic work is based on

one or several forms of knowledge, whether produced through investigation, reproduced through teaching or recreated, contextualized and spread through multiple ways. In all cases, knowledge possesses a universal dimension that makes it valid intersubjectively; its validity is not conditioned by the geographic context of its production. In consequence, knowledge does not lose its requirement of universality by becoming institutionalized. To the contrary, whatever type it may be, it nourishes ordinary academic activities of higher education, configuring a culture inherent to academia. On the other hand, from a more external viewpoint, universality also refers to multiplicity and expansion of the spheres in which the institution's activities are deployed. Its meaning can be broadened to allude to the geographical arena in which it exercises influence and to the social groups over which its action extends, among other aspects.

2. *Integrity*. This is a unity referring to probity as constant concern of an institution and its program in the fulfillment of their tasks. In turn, it entails a concern for respect for the universal values and referents that configure academic *ethos,* and for adherence to universally accepted values as inspiration for the high-level educational service.

3. *Equity*. This is the attitude that mobilizes the institution and its program to give each person what they deserve. It directly expresses the sense of justice with which it operates; within the institution, for example, in the decision-making process, in evaluation systems and in ways of recognizing academic merit. And in a more general context, in continuous attention to the demands of principle arising from education's nature as public service, for example, non-discrimination of any kind, recognition of differences and acceptance of diverse cultures and their many manifestations.

4. *Idealness*. The capacity of the institution and its program to fully carry out the specific tasks deriving from the mission, their purposes and their nature, all coherently articulated in the institutional project.

5. *Responsibility*. The capacity existing in the institution and its program to recognize and confront the consequences of its actions. Such capacity derives from prior awareness of the possible effects of the course of action decided upon. It concerns criteria intimately related to autonomy accepted as task and as challenge, not simply enjoyed as a right.

6. *Coherence*. This is the degree of correspondence between the parts of an institution and between these and the institution as a whole. It is also the adaptation of policies and the means it has available to the purposes. In addition, it alludes to the degree of correlation existing between what the institution and the program say they are, and what they in fact do.

7. *Transparency*. Capacity of the institution and its program to specify, with no subterfuge whatsoever, its internal conditions of operation and the consequent results. Transparency is the daughter of probity and in turn, one of its fundamental ingredients.

8. *Relevance*. This is the capacity of the institution and its program to respond to needs in the environment. <u>Needs</u> to which the institution or program do not respond passively, but rather proactively. <u>Proactiveness</u> understood as concern for transforming the context in which one operates, in the framework of the values that inspire the institution and define it.
9. Effectiveness. This is the degree of correspondence between the purposes formulated and the achievements obtained by the institution and its program.
10. Efficiency. This is the extent to which the means the institution and its program have available are used appropriately for the achievement of its ends.
11. Sustainability. The way the program and the institution maintain activities and actions over the course of time, geared toward achievement of the goals and objectives designed for each program, and must be part of the institution's development plan.

These eleven criteria lead to an integrated conception of what quality is. This array of criteria leads to an important reflection: the sustainability, efficiency, effectiveness and relevance of a Masters (professional and academic) or Doctorate form part of the quality of said program.

3.1.4 Description of the Accreditation Evaluation Model

As a representation, the components of an evaluation model are considered separately for hypothetical purposes, but it should remain clear that they are interdependent and that this must be respected during the evaluation analysis. Furthermore, the SINAE evaluation model is constructed on the basis of the CIPP model (context, input, process and product), whose underlying premise is that the evaluation's function is to improve educational processes, hence the necessity of linking these with decision making.

This model assesses program characteristics based on four dimensions:

- *Context*, which determines the congruence between the objectives proposed and the actual achievements, and also identifies new data in the institutions' environment in order to set out new objectives. This is a general evaluation that identifies relevant characteristics and elements of a specific educational scenario justifying planning decisions.

- *Input,* which helps establish judgments about the resources and strategies available. Input is essential to be able to introduce modifications, as it allows the information necessary to discuss possible options for obtaining those changes. It justifies decisions related with the structure.

- *Process*, which is what is done during development or execution. It seeks information about the procedures and techniques that are used for decisions.

- *Product,* which is the result obtained from the process. It serves to verify achievements and relate them to the proposed objectives. Through it, judgments and decisions can be made about the program itself.

The SINAES evaluation model aims to visualize, in an integrating form, the main elements of the educational process: a setting that contextualizes, some resources or inputs necessary to carry out the educational process, the process itself and some results. In the SINAES model, these elements are called dimensions, and as framework of reference its evaluation uses the characteristics inherent to the nature of each program to be accredited. Hence, the SINAES evaluation model for postgraduate programs proposes to evaluate the program in terms of four **dimensions**: relation with the context, resources, educational process and results. For their part, each dimension is made up of an array of categories called **Components**, **Criteria**, and **Proofs** serving as analytical instrument in the assessment of different elements that intervene in comprehensive appraisal of the quality of a postgraduate program. The advantage is that its logic makes it possible to easily incorporate other concepts characterizing the quality of the program, such as effectiveness and efficiency, having to do with the relation between ends and goals and achievements, or to the relation between resources and achievements or results.

Along with the dimensions, the SINAES model establishes **three** quality assurance mechanisms, which are: admissibility, sustainability of the accreditation and the metaevaluation. Figure 1 shows the dimensions of the model.

Figure No. 1.
Dimensions of the SINAES Model of Accreditation for Postgraduate Programs
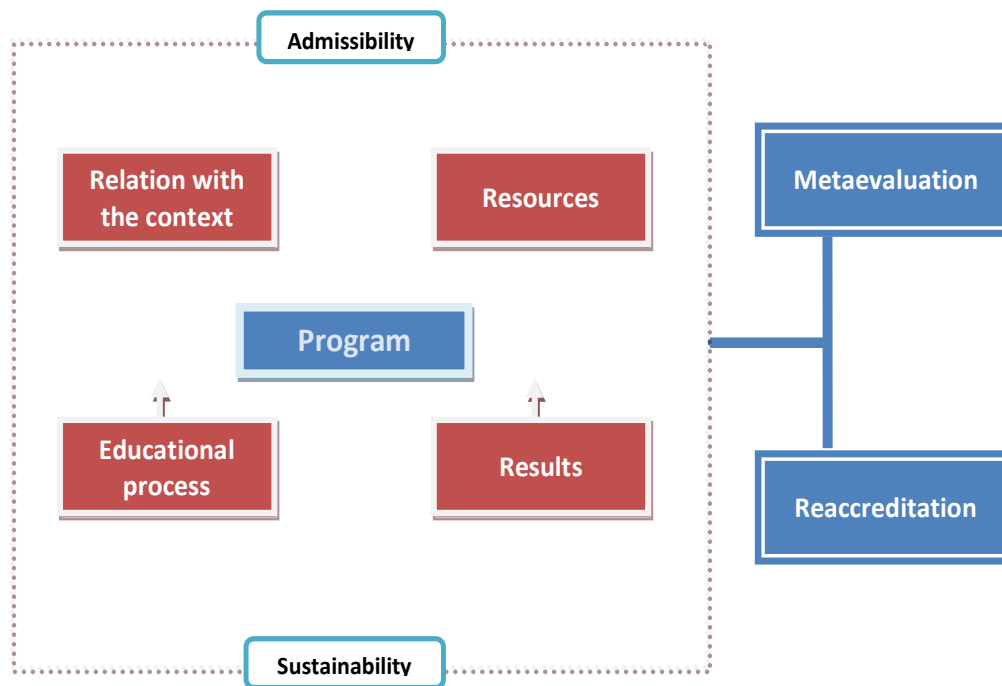
Within the SINAES evaluation model, the elements represented in Figure 1 are understood as follows:

- *Admissibility*: Criteria requiring compliance with reference to SINAES or national regulations on the operation of institutions of higher education in Costa Rica. SINAES consequently recommends that these be checked for full compliance before formally beginning the self-evaluation process for official accreditation purposes.

- *Relation with the context*: Although context is a very broad concept and difficult to evaluate, in this dimension it is of interest to analyze the experience that the institution or program places at the service of the society, not just from the standpoint of the mission of forming professionals and academicians, but also based on the idea that university institutions have a critical function with respect to what is going on in the environment, and that they are also responsible for producing or utilizing the knowledge that research generates. The institution's actions to inform its target public and the strategies and requirements for the entry of new students also become aspects that create trustworthiness and credibility for citizens.

- *Resources*: While resources or inputs do not in themselves assure the quality of a postgraduate program, they are a necessary condition for carrying out quality educational activities. Here it is a matter of analyzing the base conditions available. These conditions include the academic program, staff (academic, administrative and technical), students, and the physical and financial resources which are the subject of analysis in this dimension. Emphasis is placed on availability, quantity, and quality of resources. In the case of the study

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plan, this is expected to be a proposal that efficiently guides its implementation and which takes into consideration the basic contents of a quality university postgraduate program, as well as practices of continuous improvement.

- *Educational process:* Relates to the actual functioning or implementation of the postgraduate program. In this dimension the emphasis of the assessment is on teaching performance, the teaching and learning methodology applied, program management, student services and research (R+D+I) as an area inherent to the educational process, as well as university outreach and linkage. The aim is to establish whether the different aspects of this process are appropriate and sufficient to achieve what the program has proposed. Emphasis is placed on characteristics of quality ensuring that the processes and resources designed for the student's learning correspond to what is proposed in the study plan.

- *Results*: Refers to materialization of the results that the program obtains in terms of what was planned in the formational process and the university's ends and policies. Three aspects are of interest: student achievement in terms of academic performance, whether the profile of the graduates is achieved in terms of their performance, and the contributions the program is capable of offering professional associations and society. Because a program's results can be assessed at different moments, intermediate or final results can be obtained.

- *Sustainability of the accreditation:* Refers to the capacity of the institution and program to assure quality, maintain official accreditation and follow through with the improvement plan established. Of interest here are the policies, guidelines and mechanisms set up to facilitate the self-evaluation process, as well as the preparation and execution of the improvement plan, its monitoring and follow up.

- *Metaevaluation*: Refers to criteria developed so that the program evaluates its own self-evaluation process in terms of participation, institutional support, planning, sustainability and information management.

To facilitate the evaluation process, as indicated the model is moreover organized by components making it possible to disaggregate the dimensions of the model. Each component in turn is divided into criteria. The dimensions and components are points of reference during both the self-evaluation and outside peer evaluation phases, and final decision on official accreditation.

No dimension or component can be assessed without a point of reference, hence comparison with criteria is employed (see Figure 3). Since direct observation of the characteristics of interest is not always possible in an evaluation, the model turns to proofs. Components can have as many criteria and proofs as needed to demonstrate the conditions of the program to be accredited.

Figure No. 2.
Design of the Categories of Analysis of the SINAES Evaluation Model
for Postgraduate Programs

Dimensions		
	Components	
		Criteria and Proofs
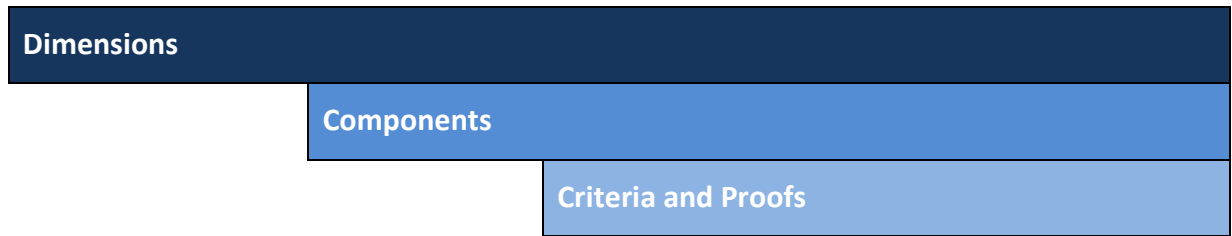
The SINAES model therefore has:

- Dimensions:
- Components: Overall areas of institutional development that express the elements that the institution and its programs possess for the entirety of academic activities. They are structural elements that affect quality and make it possible to link the mission, purposes and objectives of a program or institution with the substantive functions of research, teaching and social outreach.
- Criteria: A principle defined *a priori*, related to the obligation of being, they serve to construct evaluation judgments and analyze quality levels. Criteria delimit a field or aspects of the program's analysis. Hence, they constitute substantive elements of the quality of a program or institution and refer to the aforementioned dimensions and components. It is through them that the extent to which a program achieves the quality of its performance becomes perceptible. These criteria cannot be read in abstract form; they must be read through the lens of each institution's mission and the contextual situation in which they intend to be evaluated. Proofs are derived from the criteria.
- Proofs: Information for making criteria visible and observable and therefore the subject of evaluation. They may be of either qualitative or quantitative type, general or specific, and can be compiled from verifiable sources. Obtaining these proofs requires an information system and array of instruments enabling them to be stored.

The criteria constitute the parameters of comparison and are defined as the set of conditions that the program must meet as norms or patterns.

The evaluation process makes it possible to establish how close or far away the program being evaluated is from the criteria.

The criteria established by SINAES is based on the expectable characteristics of a program allowing it to obtain the best results and which reflect an additional or sustained effort and the steps intrinsic to the program's nature, known and shared by specialists of the discipline.

The information is obtained from the main stakeholders: the active student population; faculty; authorities; administrative, technical and support staff; administrators; employers; graduates; similar institutions and trade associations, among others. It is also obtained from official documents. The information gathered is analyzed and evaluated using the criteria as reference. Table No. 2 shows the elements that make up the official accreditation model of study plans, as well as the volume of criteria and proofs requested in each one of them.

Table No. 2.
Quantity of Criteria and Proofs According to Dimension and Component
of the Official Accreditation Model for Postgraduate Programs

Dimension	Component	Criteria and Numeration	Proofs and Numeration
	Admissibility	**6** (A.1-A.6)	**10** (1-10)
Relation with the context	Admission and entry process	**7** (1.1.1-1.1.7)	**18** (11-28)
	Correspondence with the context	**2** (1.2.1-1.2.2)	**3** (29-31)
Resources	Study plan	**8** (2.1.1-2.1.8)	**21** (32-52)
	Academic personnel	**7 (**2.2.1-2.2.7)	**15** (53-67)
	Administrative staff	**2** (2.3.1-2.3.2)	**5** (68-72)
	Infrastructure	**6** (2.4.1-2.4.6)	**25** (73-97)
	Information and resource center	**2** (2.5.1-2.5.2)	**6** (98-103)
	Equipment and materials	**2 (**2.6.1-2.6.3)	**6** (104-109)
Educational process	Faculty development	**3** (3.1.1-3.1.3)	**10** (110-119)
	Teaching and learning methodology	**4** (3.2.1-3.2.4)	**9** (120-128)
	Program management	**7** (3.3.1-3.3.7)	**14** (129-142)
	Research	**6** (3.4.1-3.4.6)	**11** (143-153)
	Student life	**2** (3.5.1-3.5.2)	**5** (154-158)
Results	Student performance	**5** (4.1.1-4.1.5)	**11** (159-169)
	Graduates	**5** (4.2.1-4.2.5)	**9** (170-178)
	Program outreach	**7** (4.3.1-4.3.7)	**20** (179-198)
	Sustainability	**2** (S1-S2)	**4** (199-202)
Total	**19**	**76**	**202**

SINAES

Chapter IV

Dimensions, Components, Criteria and Proofs in the Model

MODEL OF THE NATIONAL HIGHER EDUCATION ACCREDITATION SYSTEM FOR EVALUATION OF POSTGRADUATE PROGRAMS

COMPONENT A: Admissibility

Criteria	Proofs
A.1 If the program is a: - Doctoral program, it must have at least ten graduates. - Academic Masters, it must have at least 20 graduates. - Professional Masters, it must have at least 40 graduates.	1. Number of students graduating from the program to date 2. Graduation year of the first group of students admitted to the program 3. Historical series on registration and graduates during the last five years
A.2 All of the programs submitted must have been in operation for at least 8 years (since the first time students entered)	4. Total number of years the program has been in full operation
A.3 The definition of credit and the number of credits assigned to each course must correspond to and be applied according to the rules and regulations established by CONARE and recognized by CONESUP.	5. List of courses indicating the number of credits for each, hours of class per week, hours per week of student work and the weeks this took place
A.4 Coursework must follow academic periods that satisfy the minimum duration established in the rules and regulations of CONARE and recognized by CONESUP.	6. Description of how the rules and regulations were met 7. Duration of the academic term in weeks 8. When the duration is different from what is established according to the criteria, provide a justification of the duration of the course period and credits, indicating the number of hours and credits of the coursework in the curriculum
A.5 The degree awarded must coincide in all ways with the nomenclature of higher education degrees approved by CONARE and recognized by CONESUP.	9. Description of the extent of compliance with rules on higher education degrees in Costa Rica
A.6 The program provides information about the requirements and particularities of the teaching modality it uses.	10. Document explaining the specifics of the program modality, whether face-to-face or not

DIMENSION: RELATION WITH THE CONTEXT

COMPONENT 1.1: Admission and Entry Process

Criteria	Proofs
1.1.1 The program must have a student selection process allowing it to capture the most ideal individuals. The selection process must include at least one evaluation of competencies, experience and motivation.	11. Description of the student selection process 12. Description and analysis of results from the application of evaluations of competencies, experience and motivation in the last 5 years 13. Official document that explains the student selection process
1.1.2 The program executes an admission process assuring that candidates have the prior learning necessary, including that pertaining to non-face-to-face modalities where relevant.	14. Description of how the program ensures that candidates have the minimum prior learning necessary 15. Official document that explains the process ensuring that candidates have the prior learning necessary
1.1.3 The program's admission procedures and criteria are aligned with its objectives and are public, equitable and accessible.	16. Analysis of the congruence between admission procedures and criteria and the program objectives 17. Description of how the procedures are made available to those interested
1.1.4 The program has established and is executing a strategy assuring the program has an appropriate number of students.	18. Description of how the program establishes the number of students considered appropriate and indicate that number 19. Description of the strategy enabling the program to attract an appropriate number of students 20. Quantity of students admitted during the past five years 21. Quantity of students not admitted as a result of applying the selection process in the past 5 years 22. Quantity of students with scholarships or support in order to stay in the program, for example, as teaching or research assistants
1.1.5 The program has students with sufficient dedication to complete their studies, including the thesis, in the time period established.	23. The program's strategy for fostering sufficient dedication of time by students
1.1.6 The program demonstrates capacity to attract students from other institutions, other regions of the country and other countries.	24. Percentage of students in the past 5 years who register in the program and come from a national university other than the one offering the program 25. Percentage of students in the past 5 years who registered in the program and came from a university outside Costa Rica 26. Percentiles of students according to their province of origin during the past 5 years 27. Number of foreign students that have done research internships or partial stays in the program
1.1.7 The program's entry requirements include command of a foreign language.	28. Regulations on postgraduate admission and requirements

COMPONENT 1.2: Correspondence with the Context

Criteria	Proofs
1.2.1 The program promotes analysis of the context making it possible for scientific and technological knowledge generated nationally or internationally to be applied in national productive sectors, if relevant.	29. Description of how the program incorporates topics of context analysis in its academic activity 30. Opinion of graduates, professors and students about how much context analysis is promoted in the program
1.2.2 The program's educational activities respect internationally established ethical principles and standards.	31. Description of how the program respects established ethical principles and standards

RESOURCES DIMENSION
COMPONENT 2.1: Study Plan

Criteria	Proofs
2.1.1 The program has an extensive academic offering that gives students options concerning topics or lines of research in which they can work.	32. Description of the program's academic offering 33. Description of lines of research or project topics to which students have access
2.1.2 The program's study plan is flexible and makes it possible to take advantage of seminars and academic offerings of other research groups and programs in the same university and others located in the country or abroad.	34. Rules and regulations making it possible to take advantage of academic offerings that are complementary to the program 35. Quantity and description of experiences that demonstrate the flexibility of the study plan 36. Matrix showing students' experiences with complementary seminars during the past 5 years, indicating the student's name, complementary seminar, university and year
2.1.3 The program offers seminars and courses that convoke the participation of international speakers or participants.	37. List and description of the courses, modules and seminars offered by the program that convoked the participation of international speakers or participants
2.1.4 The program offers students courses, seminars, conferences, videoconferences and other academic activities, either face-to-face or virtual, in a second language.	38. List and description of academic activities carried out in a second language during the past 5 years
2.1.5 The program has agreements signed and being implemented that promote and guarantee the mobility of students and professors through research stays in other national and foreign universities and other cooperation mechanisms.	39. Table containing all agreements with national and international institutions that support the mobility of students and professors 40. Copy of the agreements established 41. Table with the number of professors and students that have participated in mobility programs according to the year the participation took place 42. Proposed activities and work plan executed in mobility programs 43. Details about the type of actions executed and direct and indirect benefits 44. Rules and regulations on participation in internships as part of the program 45. Matrix of students that have participated in internships during the past 5 years. Indicate the student's name, year of the internship, university or institution visited, and

Criteria	Proofs
	duration of the stay.
2.1.6 The program offers the possibility of harmonization with programs of recognized quality abroad, and the possibility of carrying out programs with dual degree or joint programs with other universities.	46. Rules and regulations on harmonization of programs and dual degrees.
2.1.7 The curriculum of each course must be indicated in a document (physical or digital) with the methodology used, including: orientations for the development of topics and acquisition of competencies, objectives, contents, description of the activities, characteristics of interaction and methodological instructions for individual and group work, learning evaluation strategies and timetable.	47. Published documents (physical or digital) that describe the methodology used 48. Percentage of students who state that they are aware of the methodology 49. Rules and regulations that the course curriculum must be delivered in the first week of class
2.1.8 In the case of non-face-to-face modalities, the program must plan for availability to students, such as didactic guides and course guidelines. These should be evaluated by the program.	50. Didactic guides and course guidelines 51. Percentage of students satisfied with the course guides and guidelines 52. Description of the mechanisms the program uses to evaluate the quality of the course guides and guidelines

COMPONENT 2.2: Academic Staff[4]

Criteria	Proofs
2.2.1 The program has sufficient core faculty able to dedicate the time necessary for ensuring optimal attention to the program.	53. Distribution of current teaching staff in accordance with the time they dedicate to the program (full time: 40 hours/week) 54. Distribution of current teaching staff in accordance with the academic level 55. Number of students per professor and respective analysis on how adequate the result is considered 56. Opinion of professors and students with respect to how adequate the student-professor ratio is considered
2.2.2 Foreign or visiting professors participate in the program.	57. Matrix of visiting professors who have participated in the program during the past 4 years. The matrix must contain the name of the visiting professor, the year of participation, type of contribution, and total duration of participation in the program
2.2.3 The program's professors receive awards and distinctions for their academic work (e.g., prizes, invitations to join national or foreign academies, invitation as visiting professor, etc.)	58. Matrix of professors who have received awards and distinctions for their academic work. The matrix must contain: the professor's name, type of recognition, name of the recognition, and year it was obtained.

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[4] The concept of academic staff, faculty and professors includes professors that are physically present and tutors in the case of non-face-to-face modalities.

Criteria	Proofs
2.2.4 The program has a sufficient core staff of professors with sufficient time to carry out work related to research, teaching and social outreach in keeping with the program's nature.	59. Matrix with the distribution of faculty time in research work, teaching and social outreach, in keeping with the nature of the program 60. Mechanisms that the program uses in order to respond to students' academic consultations 61. Program rules and regulations with respect to the maximum amount of time for teachers to respond to students in the case of non-face-to-face modalities
2.2.5 The program has policy in place and being executed on the selection, renewal and contracting of professors.	62. Description of rules and regulations on the selection, renewal and contracting of professors 63. Description of strategy on new generations of faculty in the program 64. Analysis of changes in the faculty during the past 5 years
2.2.7 The program has professors with command of a second language.	65. List of professors indicating whether they have the skills to communicate in a language other than Spanish
2.2.8 The program has professors able to perform adequately in non-face-to-face modality when relevant.	66. List of professors who have received training in or have a command of the non-face-to-face modality, when relevant. 67. Program rules and regulations on required induction processes for teaching staff in order to perform in non-face-to-face modalities

COMPONENT 2.3: Administrative Staff

Criteria	Proofs
2.3.1 The program has the necessary administrative support for adequate response to its operational characteristics.	68. Ratio between the number of students and professors per administrator. 69. Opinion of the professors, administrators and students concerning the adequacy of the student-administrator ratio and professor-administrator ratio
2.3.2 Positive perception of the quality of administrative support on the part of professors and students	70. Percentage of positive opinions on the part of the administrative staff with respect to the working conditions that exist in order to be able to provide quality administrative support to the program 71. Percentage of positive opinions on the part of professors and students with respect to the quality, effectiveness and efficiency of the program's administrative support 72. Opinion of the teaching staff and students with respect to the attention the program provides in order to carry out administrative procedures online when the program's modality is non-face-to-face.

COMPONENT 2.4: Infrastructure

Criteria	Proofs
2.4.1 The program has sufficient and appropriately equipped physical and virtual spaces, where relevant, for carrying out teaching.	73. Description of the quantity, characteristics and type of equipping with respect to teaching spaces 74. Opinion of professors and students regarding the sufficiency, quality and relevance of physical and virtual

Criteria	Proofs
	spaces for carrying out teaching
2.4.2 The program ensures that the necessary scientific/technological resources are available for the professional and academic development of professors and students.	75. Description of the quantity, characteristics and type of equipping of the spaces assigned for conducting research 76. Opinion of professors and students regarding the sufficiency, quality and relevance of physical spaces for conducting research
2.4.3 The program offers its students dedicated physical and/or virtual spaces for studying, in sufficient quantities and relevantly equipped	77. Description of the quantity, characteristics and type of equipping of the physical spaces dedicated for individual and group study 78. Students' opinion regarding the sufficiency, quality and relevance of the physical spaces dedicated to individual or group study 79. Students' opinion about the sufficiency, quality and relevance of the virtual spaces available to them for the development of their learning process
2.4.5 The program attends the needs for maintaining asynchronous and synchronous communication, including resources such as forums, e-mail, videoconferences, broadcast, chat and online learning or in a teletraining setting	80. Description of policy on maintenance and correct operation of the integrality of the technological infrastructure 81. List and description of the technological resources available for videoconferencing and the use of this service by the program 82. List and description of technological resources for online learning and use of this service by the program 83. List and description of the technological resources available, such as forums, e-mail, broadcast, and chat
2.4.6 In the case on non-face-to-face modalities, and even in the case of face-to-face modalities when so required, the university must ensure: • Redundancy of servers that uphold the virtual systems (whatever these may be) • Systems for backing up databases and courses • Bandwidths optimizing connection • Protocols in cases of emergency to ensure that online services are maintained, and software that protects against intrusion by third parties	84. Description of the characteristics of the servers concerning their capacity to ensure redundancy 85. Description of the back-up systems for databases and courses 86. Description of the availability of bandwidths with respect to their capacity to offer optimal connection 87. Availability of emergency protocols ensuring that online services are maintained 88. Description of the software available in terms of its capacity to protect against intrusion by third parties
2.4.7 In the case of non-face-to-face modalities, there must be a virtual learning platform that guarantees the quality of the courses given in this manner, access by students and tools for registration and measurement of accesses. The platform management system must make it possible to eliminate spatial barriers (having to go to the place of study), permit a flexible schedule, offer access to course information, facilitate communication and integration between students, and enable continuous evaluation and updating of materials. The platform administration system must comply with elements and characteristics permitting its efficient utilization and the achievement of its objectives.	89. Description of the functionalities of the administrative system with regard to: user management (registration, supervision of learning, report generation), resource management (registration of user activities, results of exercises, connection times and stay in the system); tools management (forums, chats, videoconferences, message boards, etc.). 90. Description of the contents of the management system: availability of learning material that can be presented as online courses (*Web Based Training*) integrated with multimedia elements and interactivity 91. Description of the synchronous information system (such as chats and videoconferences) and asynchronous system (without real-time communication, such as forums and electronic mail)

Criteria	Proofs
	92. Description of the characteristics of the management administration system with respect to: • Interactivity (dialogue between the computer and user) • Flexibility (functionalities enabling easy adaptation of the online learning system to the university and study program) • Capacity for adaptation to the institution's organizational structure, study programs and pedagogical style of the study program and university • Scalability (capacity for the learning platform to function with a small or large number of users and adaptation of the platform in those circumstances) • Standardization (capacity to utilize courses given by third parties) 93. Description of the characteristics of the administration system with respect to: accessibility (means allowing the disabled to access information); friendly interface • Compatibility of browsers (with existing search engines) • Backups • Control of access • Possibility of defining profiles and assigning specific privileges for course contents based on user roles (students, professors, administrators) • Anti-virus and worms 94. Digital registration by students and professors to access a virtual platform 95. Description of the functionalities that the administration system must contribute: • Possibility of selecting a language, internal e-mail, distribution lists, space for announcements, discussion forums and chats • Message board, videoconferencing, information search tool, file sharing with server, help, personal pages, agenda, creation of work groups, self-evaluations, progress bar and templates • Creation of indices, course management, study sequences, restriction on materials based on calendar or requisites, notebook, self-registration, authentication, profiles, privileges and appearance 96. Description of alternative mechanisms for student-professor communication if problems with the virtual platform should arise 97. Description of the tools available for access registration and measurement

COMPONENT 2.5: Information and Resource Center

Criteria	Proofs
2.5.1 The program has access to a physical information and resource center with the necessary bibliographical material to achieve its objectives	98. Description of the characteristics of the information and resource center to which the program has access 99. Analysis of how the resources available at the information center make it possible to achieve the program objectives 100. Opinion of professors and students regarding the center's capacity to respond to the bibliographical needs of the program's teaching and research objectives
2.5.2 The program has access to online bibliographical databases enabling it to obtain updated material necessary for the achievement of its objectives.	101. Description of the characteristics of the bibliographical databases to which the program has access 102. Analysis of how the resources available in the bibliographical databases permit the achievement of the program's objectives 103. Opinion of professors and students regarding the center's capacity to respond to the bibliographical needs of the program's teaching and research needs

COMPONENT 2.6: Equipment and Materials

Criteria	Proofs
2.6.1 The program has access to sufficient equipment and materials to achieve its teaching and research objectives.	104. General description of program equipment and materials to carry out administrative management and teaching and research work 105. Analysis of how the equipment and materials available permit program objectives to be achieved 106. Opinion of professors, students and administrators regarding the sufficiency, relevance, currentness of program equipment and materials and current needs
2.6.2 The program has a technological platform that facilitates interaction between students, faculty and administrators, and supports the program's teaching and research work.	107. Description of the program's technological platform to carry out administrative management and teaching and research work 108. Analysis of how the platform available permits the program objectives to be achieved 109. Opinion of professors, students and administrators regarding the quality of the platform and use of it

DIMENSION: EDUCATIONAL PROCESS
COMPONENT 3.1: Faculty Development

Criteria	Proofs
3.1.1 The program supports continuous training of its faculty through different strategies such as sabbaticals, possibilities for postdoctoral education, training internships, congresses and other activities offered by the institution for faculty academic formation.	110. Rules and regulations on faculty access to sabbaticals and postdoctoral work or other experiences 111. Matrix with the faculty that have taken sabbaticals or participated in postdoctoral programs during the past 5 years. Include the professor's name, type of benefit, work carried out during the sabbatical or postdoctoral work , and the period

Criteria	Proofs
	112. Professors' opinion about the possibilities existing to be able to access benefits such as sabbaticals or participation in postdoctoral programs, training internships, congresses and other activities aimed at the faculty's academic formation
3.1.2 The program has mechanisms in operation related to the recognition of academic merits and experience that permits faculty professional development.	113. Description of the rules and regulations regarding the academic regimen 114. Matrix of professors according to academic regimen. Indicate the academic level, years of experience and position in the academic regimen.
3.1.3 The program has established and is executing decision-making mechanisms for evaluation and feedback on the work of the faculty and researchers.	115. Description of evaluation mechanisms for faculty and researchers employed by the program 116. Description of feedback mechanisms on the performance of professors and their consequences in the labor sphere 117. Rules and regulations on faculty evaluation and feedback 118. Instrument for evaluating professors 119. Table summarizing the results of faculty and researcher evaluations in the past 5 years

COMPONENT 3.2: Teaching-Learning Methodology

Teaching-Learning Methodology Criteria	Proofs
3.2.1 The program has strategies in place and being implemented to promote students' participation in academic activities with members of national and international communities of recognized prestige in the field of the program.	120. Description of strategies to promote student participation in academic activities 121. Rules and regulations on the alternative of participation in research activities of other groups or in complementary programs 122. Matrix with students' experiences with the activities of groups or complementary programs during the past 5 years. Include the student's name, activity, complementary program or research group, university and year.
3.2.3 The program promotes the development of basic capacities in its students. At minimum, it should focus on the following: • Investigative capacity of students • Capacity of independent thinking • Capacity and command of theoretical aspects of the discipline • Capacity and command at the methodological level and of research techniques pertaining to its field of knowledge • Capacity to construct state-of-art and trends in a field of knowledge through the critical use of different information sources • Capacity to communicate research advances and results	123. Description of how the teaching/learning strategies developed in the program promote the development of basic capacities 124. Description of how strategies for evaluating learning assess the development of basic capacities
3.2.4 Academic staff provide personalized attention, either physical or virtual, and periodic and efficient monitoring of students' research work	125. Description of the strategies and mechanisms for monitoring the work carried out by students 126. Rules and regulations on the work of the thesis advisor
3.2.5 The program and the university promote and offer students facilities such as courses, seminars, and lectures at the university on different aspects related to their research topics.	127. Description of the mechanisms and instruments the program offers to its students in order to participate in academic activities 128. Description and list of academic activities organized by the program to which the program's students have access

COMPONENT 3.3: Program Management

Criteria	Proofs
3.3.1 The program's objectives are clearly established and are coherent with the actions implemented to reach them.	129. Description of how the program has approached the achievement of objectives through its different actions
3.3.2 The ends and objectives of the study program must be clear and congruent with the institution's tenets and adequately guide the educational process.	130. Justification of the congruence of the ends and objectives of the study program with the tenets of the institution
3.3.3 The program prepares an action plan and has medium and long range forecasts on its development	131. Strategic objectives, annual operating plan of the program, medium and long range plans 132. Description of control mechanisms existing to monitor

Criteria	Proofs
	compliance with the annual operating plan
	133. Analyze the relations between the strategic objectives of the school or institutions and the action plan of the postgraduate program
3.3.4 The program has established and is executing a financing strategy to ensure its sustainability.	134. Description of the financial situation of the study program during the past 5 years
	135. Financing strategy that ensures the program's viability in the next 5 years
	136. Opinion of professors and directors about the program's financial solidity
3.3.5 The program has a management mechanism that incorporates the participation of advisory or scientific committees.	137. Rules and regulations on management of the programs and their organizational structures
	138. Description of the program's management mechanisms, its organization and the entities involved
	139. Description of the functions and way that the scientific committee operates
3.3.6 The program has established and is executing coordination mechanisms between the institutions or academic units (colleges, schools, etc.), and between the participating research groups.	140. Description of coordination mechanisms between the academic units, and list of the entities involved
	141. Description of the achievement obtained through this coordination
3.3.7 Program management has academic and administrative information systems recording pertinent decision-making data	142. Description of the academic and administrative information system, the data it contains, updating mechanisms and how it contributes to decision making

COMPONENT 3.4: Research

Criteria	Proofs Proposed
3.4.1 The university where the program is located has established and is executing a clear policy of support to research, as well as different strategies ensuring its proper and optimal implementation.	143. Description of the university system that provides support to the research conducted by the postgraduate study program, including policies, university structure, financing, system of recognition for researchers, infrastructure, et alia.
3.4.2 The lines of research addressed in the program are current and linked with the academic and social setting.	144. Description of the lines of research that are being linked with contribution to the local context 145. Analysis of how the program promotes and contributes to research of the context
3.4.3 The program must demonstrate that one or more research groups exist that are visibly consolidated through their outputs and that they have scientific production.	146. Description of the research groups existing in the program 147. Academic production and contributions in general of each research group
3.4.4 The academic production of the program researchers and students must contribute to the development of the discipline and to the country's development.	148. Text that contains a State of the Art of academic production and contributions in general to scientific and social knowledge by the program 149. List of research conducted and theses on aspects of interest for national, regional or local development. Present the complete bibliographical references.
3.4.5 The program is executing a strategy enabling the formation of researchers and the development of competencies for academic research in the students.	150. Description of how the program forms researchers (Doctorates) or develops research competencies (Masters)
3.4.6 The program generates changes or improvements in the social setting introduced through thesis results or research projects.	151. Description and list of the program's contributions 152. Analysis of the impact of the program's contributions 153. List of experiences in exchanges with social actors (e.g., companies, trade associations, government agencies, NGOs, etc.) in order to conduct research or consulting services related to themes of their interest

COMPONENT 3.5: Student Life

Criteria	Proofs
3.5.1 The university and the program have an expeditious and relevant system of attention to student wellbeing.	154. Description of the university system that addresses the conditions of student life, such as medical insurance, medical and psychological attention, scholarships, recreational activities, fostering of university life, et alia. 155. In the case of non-face-to-face modalities, provide a list of services available for comprehensive attention to students: tutorials, coursework on initiation into methodology, technical support service and its schedule, timely administrative assistance, et alia. Availability of asynchronous attention by administrative services, schedule of synchronous administrative attention, schedule of synchronous administrative attention, processes of induction into the modality facilitated by the program to students 156. Opinion of the program's students about the services to which they have access
3.5.2 The university and the program have mechanisms that ensure student wellbeing during short stays abroad and in programs for student mobility and participation in international congresses and scientific events.	157. Description of the support provided by the university and the program to students who do internships outside the country or as part of their participation in congresses and scientific events 158. Opinion of the students who have participated in internships outside the country with respect to the support provided by the university and program

DIMENSION: RESULTS
COMPONENT 4.1: Student Performance

Criteria	Proof
4.1.1 The program has established and is executing strategies to manage and control student dropout from the program.	159. Description of the strategies, mechanisms, and policies established to manage and control student dropout 160. Rate of student dropout from the program during the past 5 years
4.1.2 The program is executing mechanisms to monitor publications deriving from students' theses.	161. Description of the mechanisms for monitoring publications deriving from the students' theses
4.1.3 The program has established and is executing rigorous and transparent mechanisms to evaluate the students' performance.	162. Description of the mechanisms for evaluating student performance implemented in the program, and demonstrating the rigorousness and transparency of evaluation procedures and instruments 163. Matrix that shows the rates at which students successfully pass courses (or other academic activities, depending on the case) during the past 5 years 164. Opinion of students and professors regarding the rigorousness and transparency of evaluation mechanisms, instruments and procedures 165. Description of the mechanisms that the program uses to verify the originality of the contributions made by students and their identity
4.1.4 The program's terminal effectiveness must be as close as possible to the projections of the study plan.	166. Description of the strategies, mechanisms and policies on improving the terminal effectiveness of the program's

Criteria	Proof
	students
	167. Terminal effectiveness of the program's students in the last 5 years
4.1.5 At least 50% of the students in each entering class have defended their thesis within the expected period of time	168. Percentage of graduates who defended their thesis in the period of time indicated in the plan of study, using as reference the year their class entered the program 169. Weighted average (in months) of the amount of time it took students to defend their thesis in comparison to their cohorts during the past 5 years

COMPONENT 4.2: Graduates

Criteria	Proof
4.2.1 The program has a clearly established profile of its graduate.	170. Profile of the program graduate
4.2.2 The graduate profile is in keeping with the development characteristics of the subject of study and needs in the setting.	171. Description of how the graduate profile is in keeping with the scientific needs of the discipline and the needs of the setting
4.2.3 The program keeps a record of its graduates.	172. Description of the information system for recording program graduates 173. List of information the program has about its graduates 174. Number and percentage of graduates in the past 5 years for whom there is complete information 175. The program has a database on the graduate identified, the workplaces of the graduates at both national and international level, the types of institutions where they work, the positions they hold, and other aspects considered relevant in order to visualize employability conditions during the past 5 years
4.2.4 The program follows up on graduates' performance.	176. Description of how the program follows up on graduates 177. Graduate attraction strategies the program has implemented and analysis of the success obtained as consequence of these actions
4.2.5 The program has mechanisms underway to ensure that graduates have refresher, interaction and feedback opportunities.	178. Description of refresher, interaction and feedback mechanisms and experiences with graduates that have been carried out in the past 5 years

COMPONENT 4.3: Program Outreach

Criteria	Proofs
4.3.1 The results of research conducted by the program will be visible through academic production and scientific publications as consequences of that production by professors and researchers.	179. List and bibliographical reference on articles published by the program's professors and researchers in indexed national and international journals 180. List and bibliographical reference of books and book chapters resulting from the research published by the program's professors and researchers 181. List and bibliographical reference of communications in international national congresses published by the program's professors and researchers

Criteria	Proofs
	182. Evaluation of the impact of the publications measured through indicators on bibliographic citation and co-citation published by the program's professors and researchers 183. List and bibliographical reference of other publications resulting from the published research of the program's professors and researchers
4.3.2 The results of the research conducted by the program are turned into innovation products that are visible by national and international society.	184. List of patents, technological products, applications, outreach products and other production that can be considered to be a result of the research conducted by the program
4.3.3 The research conducted by students in the program enables the production of publications derived from contents of the thesis.	185. List and bibliographical reference of articles published by the program's students in national and international indexed journal articles 186. List and bibliographical reference of books and book chapters resulting from the published research of the program's students 187. List and bibliographical reference of communications at national and international congresses published by the program's students. 188. Evaluation of the impact of publications measured through indicators on bibliographic citation and co-citation 189. List and bibliographical reference of other communications resulting from the published research of the program's students
4.3.4 The program's students present their results from research or professional formation at national and international academic events.	190. List and number of academic events where the program's students participated presenting results from their research or professional formation during the past 5 years
4.3.5 The program's students participate in research networks and in scientific/technological communities.	191. List of a research networks and scientific communities with which the program's students are connected.
4.3.6 The program's graduates have academic and professional production displaying the quality of the postgraduate education.	192. List and bibliographic reference of articles published by the program's graduates in national and international indexed journals 193. List and bibliographical reference of books and book chapters resulting from the research published by the program's graduates 194. List and bibliographical reference of communications at national and international congresses published by the program's graduates 195. Evaluation of the impact of the publications measured through indicators on bibliographic citation or co-citation 196. List and bibliographic reference of other communications published by the program's graduates 197. Analysis of the professional experience of the program's graduates
4.3.7 The program has graduates that have received awards and distinctions for their academic and professional work (e.g., prizes, invitations to join national or foreign academies, invitation as visiting professor, etc.)	198. Matrix of graduates that have received awards and distinctions for their academic and professional work. The matrix must contain: the name of the graduate, type of recognition, name of the recognition, and year it was obtained.

COMPONENT S: Sustainability

Criteria	Proofs
S.1 The university has policies, mechanisms and guidelines approved and in operation that: • Facilitate the process of institutional self-evaluation • Facilitate the preparation and execution of the improvement pledge • Ensure monitoring and supervision of the self-evaluation process • Ensure monitoring and supervision of the execution of improvement pledges • Ensure the development of a culture of evaluation and quality management	199. Description of these policies, mechanisms and guideline 200. Description of elements demonstrating that these policies, mechanisms and guidelines are being implemented
S.2 The program has policies, mechanisms and guidelines approved and in operation that: • Facilitate the process of institutional self-evaluation • Facilitate the preparation and execution of the improvement pledge • Ensure monitoring and supervision of the self-evaluation process • Ensure monitoring and supervision of the execution of improvement pledges • Ensure the development of a culture of evaluation and quality assurance	201. Official approved document with these policies, mechanisms and guidelines 202. Description of elements demonstrating that these policies, mechanisms and guidelines are being implemented

Chapter V

The Self-Evaluation Report

5.1   Recommendations for the Self-Evaluation Process

To facilitate the self-evaluation process, the National Accreditation Council (SINAES) considers that institutes of higher learning which have decided to accredit postgraduate programs should bear in mind the following practical recommendations:

5.1.1 Fundamental Conditions for Conducting a Self-Evaluation Process

For the entire community to participate in self-evaluation processes, communication and coordination spaces must be opened enabling access to all of the information necessary for the construction of judgments on quality, supported and substantiated on the basis of the actions of all participants in the different processes carried out by programs and the institution. For this, it is necessary to assess the conditions in place for conducting the self-evaluation process. Some essential aspects include the following:

- Existence of a team to lead the process
- Permanent interest and participation
- Availability of substantive and valid information with capacity to analyze it exhaustively
- Commitment of the participants to the pursuit of tangible improvement results

Requirements for carrying out an effective process include the following:

Understanding of the scope of the process: Self-evaluation for purposes of accreditation has its own meaning connected with generating results for improving quality, an outlook that must be shared by stakeholders in the process.

Internal motivation: Because the self-evaluation process demands considerable effort and diverse workloads, it is necessary to determine internal motivations in the academic unit so that the different participants can be mobilized appropriately.

Willingness to share the experience: The self-evaluation processes are based on an internal exercise; however the more these are presented and shared, the more feedback will be obtained. In fact, accreditation processes entail an external look by outside peer evaluators who will validate the information from the self-evaluation process and issue their conclusions and recommendations.

Explicit support of the authorities: The authorities of the institution and academic unit need to make the self-evaluation process a priority. This ensures that the process is not postponed due to the institution's own processes. It is advantageous for authorities to be aware of the design proposed, so that the strategy, analysis and results have their respective endorsement.

Minimum resources: A certain level of human and financial resources must be ensured before starting the process. Both the commission in charge of the self-evaluation process and the person in charge of coordination, in particular, must be assured of having enough time, in line with the complexity and characteristics of the study program to be evaluated. Depending on the characteristics

of the process, additional resources may be required in order to support specific activities and tasks: workshops, seminars, application of information-gathering instruments, data analysis, etc.

Continuous improvement as central theme: It is useful to direct the process with the purpose of fostering the study program's improvement. Efforts should be in keeping with the pledge signed by the university institution with SINAES of fostering practices of continuous quality improvement and periodic review.

Training: It is highly supportive to train the staff of the study program and institution in basic concepts of evaluation for improvement, as well as in the evaluation model and tools proposed by SINAES.

5.1.2 The Self-Evaluation Commission

It is advantageous for the self-evaluation phase to be coordinated by a commission designated from inside the program to be in charge of developing and coordinating the process and preparing the final Self-Evaluation Report document. For the purposes of the process with SINAES, this commission will be named the Self-Evaluation Commission.

It is entirely up to the program regarding the criteria to be used for selecting the members of this commission. However, the following conditions are best kept in mind:

- Endeavor to include representatives of other institutional entities that are strategic to the program's development so that they can contribute to the self-evaluation process, or a person can be designated to be in charge of close linkage with these entities (for example: the entity responsible for student development, the library system, administration and finance; etc.)

- Encourage heterogeneous and diverse representation making it possible to capture the different levels of the academic program's influence

- Coordinate with the technical unit for institutional academic evaluation

- Consider the participation of student representatives

- Ensure that the commission has the ideal technical level, is motivated about the process and has legitimacy and the backing of the members of the academic community and authorities of the institution.

- While members of the committee should not be direct representatives of authorities in order to ensure criteria independent from power entities, they need the backing and capacity to generate the convocations and activities required for the process.

The Self-Evaluation Commission may organize in whatever way it considers advantageous, for example in committees or subcommissions responsible for different internal and external processes involved in the self-evaluation process.

The number of people in the commission can vary depending on the magnitude and characteristics of the program, but more than anything else, should take into consideration a number allowing for effective work.

When there is participation in the program by two or more academic units in charge of its management, full participation of these units in the self-evaluation process should be ensured.

The commission must have a <u>person in charge of coordination</u>, preferably an academician that is widely recognized within the program and has the necessary leadership to lead the process, along with the required technical competencies. It should also be borne in mind that this person must have the time required to fulfill this function.

5.1.3 Design and Organization of the Process

There are numerous ways to design and organize a self-evaluation process. Different options should be considered in order to choose the form best suited to the program's characteristics and operation.

It must be stressed that the evaluation is a process of scientific investigation and as such will require an approach duly based on a conceptual approach that maintains congruence with the methodological strategies for collecting information and its analysis.

The programs initiating this process can make use of different existing bibliographical materials of support. An exhaustive review is recommended to choose a conceptual and theoretical framework with the greatest affinity to the institutional proposal and the frameworks of action of the program to be evaluated.

Likewise, SINAES can provide general training and orientation (methodological and logistical) deriving from the experience generated in the different accreditation processes that have been attended.

It is important to propose different moments for reviewing results so as to determine what information is missing and any new questions arising in the process. Data-gathering stages must be distinguished from phases of analysis, and it is necessary to organize inputs during moments of work that are specifically evaluative. Each one of these stages must be organized in a timetable that will be disseminated among the different participants of the process.

5.1.4 Methodological Aspects

Programs must take on the self-evaluation as a process of scientific investigation requiring the thoroughness and rigorousness inherent to the academic efforts customarily conducted in the university world.

In this framework, it is necessary to:

- Assume an objective and transparent approach permitting an objective handling of information and analytical processes that affect the program

- Guarantee the application of a clear and consistent methodological approach in order to verify congruence between the data collected and the formulations and assessments contained in the Self-Evaluation Report

- Identify activities for improvement in keeping with each of the criteria established in the SINAES Evaluation Model according to dimension and component

- Methodology, investigation techniques, analysis and systematization of the information that will be employed to perform the self-evaluation are defined by the Self-Evaluation Commission, using the SINAES Evaluation Model as foundation.

One of the commission's main tasks will be to conduct a diagnostic approximation by gathering available documentation: products of previous evaluation processes, management reports, strategic or development plans, etc.

This first review of information will allow the self-evaluation commission to assess the magnitude, information gaps and institutional characteristics of the program in order to adjust the design of the self-evaluation proposal and present planning on the activities to be carried out.

Information gathering is one the essential parts of the design of the process. For this, it is necessary to clearly determine what information is already possessed and what needs to be generated.

In addition, information can be classified in the following manner:

- Descriptive information of a qualitative nature

- Descriptive information of a quantitative nature

- Analytical information from the qualitative and quantitative databases collected

- Information based on opinion

To obtain the information required, it is necessary to observe how available data has been collected and decide what techniques will be used to gather the information still needed. Correspondence between the different techniques must be assured, as well as congruence with the evaluation approach defined by the organization.

The work of information collection and processing can be supported by the program's administrative staff or by specialized offices in the institution established for these purposes.

The other essential part of critical analysis of the information gathered is that it must be done with an eye to appropriate triangulation of the data, making it possible to uphold affirmations of reliable and veracious information.

Weighting

Dimensions, components and criteria, all of which are important from the standpoint of the program's quality, impact in different ways on the development of the institution of higher learning, and particularly its programs. Given this difference, each one of the elements comprising a whole must be weighted. In other words, they must be given a relative weight that reflects each one's importance within the whole. In this sense, prior to initiating the process the program must carry out a weighting process aimed at distinguishing relative importance. This therefore entails assigning a differential weight to the components or factors that are evaluated. There are two main ways to assign this weight. First, a value scale can be adopted (e.g., from 0 to 10 or any other maximum value), assigning a number on that scale for each criteria contemplated in the analytical model. The weight of each component is the sum of the values given to the criteria comprising each component. In a second step, the numbers assigned based on a value scale must be expressed in terms of the percentage each number represents in total points. This makes it possible to express the assigned weight to each criteria and component in terms of a percentage (which represents its weight or relative importance within the total points that the weighting exercise yields).

5.1.5 Participation in the Self-Evaluation

It is especially important that the process be **participatory**, such that it foments the analytical reflection of the entire academic community and effective mechanisms are carried out to obtain the active participation of its different sectors (faculty, students, authorities, administrators, graduates and employers) as well as other sectors or contacts that are relevant to the educational proposal (professional associations, research centers or projects involved). So that levels of effectiveness are achieved in terms of participation, efforts must be aimed at methodological congruence between the organizational strategy of the process, the application of research techniques and instruments and the analysis of results.

It is consequently recommended that the Self-Evaluation Commission use participatory methodologies ensuring a high level of involvement of the stakeholders at the different stages to achieve effective contribution in the assessment of the study program. It must be very clearly borne in mind that effective participation does not mean everyone should be involved in everything, nor group activities that only provide information in a uni-directional way.

Key stakeholders must be detected for each sphere of analysis and attempts made to obtain their input at the phases of discussion, analysis and proposal. A key stakeholder is one that has a relation

with and benefits from the product provided by the study program, both internally (students, faculty and administrative staff) and externally (graduates and employers).

The aim of a participatory process is to obtain representativeness in the information obtained, but which at the same time reflects the consensus and divergences existing among the different sectors. It is for this reason that transparency in the collection, interpretation and discussion of data helps dissemination of the findings enable processes of reflection and analysis that are enriching for the study program.

5.1.6 Analysis of Results

In general terms, it should be remembered that there are two overarching areas of analytical production in the self-evaluation process:

a) The characterization of the program

b) The evaluation of the program

To characterize the program, as has been indicated in the previous section it will be necessary to collect numerous data and process information that will uphold the affirmations that the Self-Evaluation Commission formulates. The SINAES model offers an organization by dimension and component making it possible to establish main themes of analysis.

Once the supporting information is obtained, there are different strategies for promoting the evaluation process, which should be selected in accordance with the conceptual affinity and methodological strategy most advantageous for organizing the review of its material.

It is possible to coordinate through thematic sessions or work by subcommissions, workshops conducted by facilitators or strategies of group production, either face-to-face or at a distance. Recent experiences have shown that the use of shared documents online can be a very effective resource in preparing products of collective analysis.

Some facilitating activities customarily used to analyze results are:

- Thematic workshops
- Preliminary reports
- Dissemination among internal stakeholders
- Internal meetings or seminars
- Presentation of data to outside university entities
- Periodic meetings and reports to the coordinating team
- Structured discussion sessions

Nonetheless, regardless of the approach employed SINAES will require that at some moment of the actual evaluation process, the situation of the study program is contrasted with the official

postgraduate evaluation model. Once the program has carried out its information processing and analysis, the array of criteria SINAES has established must be used.

5.1.7 Preparation of the Preliminary Improvement Pledge:

Through the self-evaluation, the program is aware of its situation in relation to the criteria of the Self-Evaluation Model proposed by SINAES and identifies its strengths and its weaknesses. This constitutes the basis for preparing the Preliminary Improvement Pledge, which is the operational instrument of the development plan toward quality that the program will formulate.

5.1.8 Technical Advising from SINAES during the Self-Evaluation Process

Each accreditation process carried out in SINAES has an assigned investigator in charge of providing technical support, advising and accompaniment for the process in technical, methodological and evaluative aspects. Usually this support is accentuated in the external evaluation stage, both to prepare conditions and during the visit of the outside peer evaluator team. However, SINAES is entirely willing to attend technical consultations at any stage of the accreditation process.

SINAES can also provide specialized talks, training workshops and educational modules to meet the needs that institutions of higher learning detect during the phase of self-evaluation for the purposes of official accreditation.

5.2   Structure of the Self-Evaluation Report

For SINAES's official accreditation of postgraduate programs, the self-evaluation process followed by the program must culminate in the production of the **Self-Evaluation Report** document presenting the process carried out, the assessments made, and the findings and results supported by proofs. This report is the main result of the program self-evaluation and accreditation process, and therefore the main input for the work of the academic peers designated by the National Accreditation Council in order to conduct the outside evaluation of the program and verify its quality.

The structure of the Self-Evaluation Report for purposes of Accreditation of High Quality of Masters and Doctoral Programs includes a central body and the annexes that support the report. The central body of the program self-evaluation report must be as concise as possible, around 100 pages (or less) containing the result of the analysis of each dimension, component, and criteria, and the judgments about the quality of the program considered to be reached.

The central body of the Self-Evaluation Report must include the following chapters:

A. Introduction. The introduction must include a brief description of the self-evaluation process, the methodology employed, and the degree of participation by different institutional and social stakeholders in the self-evaluation process of the Masters or Doctoral program. This first chapter should emphasize the importance that the university and program give to the self-evaluation and to continuous improvement and the objectives pursued.

B. General Aspects. This second chapter should offer a brief presentation of the Masters or Doctoral program and the role it plays in the university. It can contemplate such aspects as:

   a. Brief description of the university and above all, the role that postgraduate studies play in this institution of higher education

   b. Basic description of the Masters or Doctoral program, including the date it was created, when activities began, the duration of the program, schedule, number of graduates since its creation, and information showing the dynamics of the program within the institution in general, as well as the relation between this program and other academic programs offered at the institution of higher education, whether undergraduate or postgraduate.

   c. Objectives of the program and profile of the graduate it proposes to prepare

   d. Brief analysis of the evolution of the Masters or Doctoral program

   e. Weighting of the components and criteria according to dimension, with the corresponding justification

   This chapter must include any aspect that the program feels is pertinent in order to highlight and understand specific aspects considered important.

C. Results of the self-evaluation. The third chapter is the core of the Self-Evaluation Report. This chapter presents the results obtained in the evaluation of each component and criteria according to dimensions, which constitute the SINAES evaluation model. It should therefore contain four sections (dimensions) with all the components and criteria each one contains. At the end of each section a conclusion should appear regarding the final integrated grading.

D. Strengths and weaknesses of the program. The fourth chapter of the Self-Evaluation Report is a brief chapter of synthesis. The program's strengths and weaknesses should be highlighted, based on the analysis presented in the previous chapter. In addition, a final appraisal must be included that expresses an explicit judgment regarding the quality of the program.

E. Improvement Pledge. Lastly, the Self-Evaluation Report must present an Improvement Plan. This plan must propose how the program will continue intensifying its strengths and how it will respond in order to overcome its weaknesses. This plan must include goals making it possible to follow up on the plan.

F. Annexes. They include the supports used as the foundation for judgment of the quality criteria. The annexes also bring together the methodology employed by the institution for collecting the data, and the methods and instruments used in the construction of the judgments.