



**Accreditation Agency for Engineering and
Architecture Programs**

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**MACROPROCESS
Accreditation**

**DOCUMENT
Self-evaluation guide**

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**PROCESS
Evaluation**

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Presented by:

Name of Higher Education Institution

Name and academic degree of the program

Date

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General indications:

- This guide complements the accreditation manual, which should be kept in mind at all times, as well as the glossary of terms and concepts.
- The information provided must be clear, accurate, complete and truthful.
- The terms and concepts used must be aligned with those established in the accreditation manual. If any other term is used, its definition and indications for its correct interpretation must be attached.
- Additional pages may be added to complete the tables or to present the information requested, taking care to maintain the corresponding numbering and descriptive headings.
- Only the information requested should be attached. If any other information is deemed appropriate, it can be submitted to the visiting team.
- It is hoped that conducting this self-evaluation will be an opportunity for dialogue, understanding and improvement.

0. General información.

- 0.1 Name and mailing address of the institution of higher education
- 0.2 Name and position of the highest authority of the higher education institution
- 0.3 Title, name, CFIA card or professional ID number, e-mail address of the dean (or equivalent)
- 0.4 Title, name, e-mail address of the person responsible for organizing the visit
- 0.5 Title, name, CFIA card or professional license number, e-mail address of the person responsible for the program, director or equivalent
- 0.6 Program authorization agreement:
 - Indicate the agreement number and date of program authorization.
- 0.7 Academic degree and title:
 - Indicate the degree and academic degree offered, the options, emphasis and “lateral exits”, if any.
- 0.8 Cohort of graduates:
 - Indicate the graduation date of the first cohort of the program and number of graduates.

4.1 Syllabus (curricular content)

A. General aspects

4.1.1 Commitment to curriculum improvement:

4.1.1.1

- List the processes and instruments for the revision of the academic curriculum.
- Also indicate the periodicity of the revisions.
- Identify the stakeholders who participated in the reviews.

4.1.1.2

- List the general objectives of the career and the main contents of study proposed in the curriculum, highlighting the most current ones.

4.1.2 Curriculum orientation:

4.1.2.1

- Explain to what extent the training objectives are aligned with the training project or model that guides the curriculum.

4.1.2.2

- Complete the matrix linking the general objectives and subjects of the curriculum

	Objective 0	Objective 1	...	Objective n
Subject 0				
Subject 1				
...				
Subject n				

4.1.2.3

- Complete the matrix linking subjects with objectives, contents and learning activities that include aspects related to graduate attributes.

	Attribute 0	Attribute 1	...	Attribute n
Subject 0				
Subject 1				
...				
Subject n				

4.1.2.4

- Complete the matrix that links the subjects with objectives, contents and learning activities that include aspects related to the Sustainable Development Goals (SDGs) relevant to the professional field of the career.

	SDG 0	SDG 1	...	SDG n
Subject 0				
Subject 1				
...				
Subject n				

4.1.2.5

- List the actions and procedures for the academic community to know the orientation (general objectives) of the curriculum.

B. Academic-professional profile

4.1.3 Attributes of graduates:

4.1.3.1

- List and explain the efforts (organization and process) institutional and departmental or school, for the incorporation in the formative process of the attributes.

4.1.3.2

- List and explain the concrete actions that evidence the commitment of authorities, academics and students to assume the attributes approach in the formative process.

4.1.3.3

- Present a matrix or table with mapping of the attributes in the academic curriculum, indicating in which subject, in which academic cycle, a certain attribute is developed or evaluated and the corresponding level: initial, intermediate or advanced.

4.1.3.4

- List and explain the means, tools and indicators developed to verify the achievement of each attribute.
- List and explain the results obtained in the application of the means, tools and indicators.

4.1.3.5

- List the actions taken on the basis of the results obtained and explain how these contribute to the improvement of the evaluation process of the attributes and the training process.

4.1.4 Curriculum structure:

4.1.4.1

- Explain to what extent the curricular structure or “curriculum map” of the study plan is pertinent to the nature and object of study of the training process.

4.1.4.2

- Reproduce the “curriculum map” of the study plan.
Must include:
 - The development axes of thematic áreas of the curriculum.
 - Transversal axes (if any).
 - Subjects common to other Engineering programs (common core).
 - The organization and sequence of subjects.

4.1.4.3

- List the optional or elective subjects in the curriculum.

4.1.1.4

- List the supervisión and control actions developed to ensure that the objectives and contents under study, in all the program’s development axes, are relevant, pertinent, updated, and sufficient to favor the achievement of the attributes and contribute to the growth in the commitment to the objectives of sustainable development.

4.1.5 Duration of the curriculum:

4.1.5.1

- Indicate the total duration in accreditation units (teacher-student interaction time or programmed training activities) of the curriculum in its different emphases or graduation options.

C. Minimum curriculum components:

4.1.6 - 4.1.7 - 4.1.8 - 4.1.9 - 4.1.10 - 4.1.11 - 4.1.12

Curricular category	Units from accreditation (UA)
4.1.6.1 Mathematics (MT)	
4.1.7.1 Natural sciences (NC)	
4.1.8 Combination of mathematics and natural sciences (MT + CN)	
4.1.9.1 Engineering sciences (IC)	
4.1.10.1 Engineering design (ED)	
4.1.11 Combination of Engineering Science and Engineering Design (IC + ID)	
4.1.12.1 Complementary studies (EC)	

• **Breakdown of Accreditation Units per program subject**

Subject	MT	CN	CI	DI	EC	Total UA
1.						
2.						
...						
n.						

Laboratory, workshop and/or field experiences.

4.1.7.3

- List and explain the main laboratory and field experiments carried out to complement the theoretical aspects of Natural Sciences (NC).

4.1.9.3

- List and explain the laboratory and field experiences, which are carried out to complement the theoretical aspects of Engineering Sciences (IC).

4.1.9.4

- List the contents of other Engineering professions included in the curriculum.

4.1.10.3

- List and explain the laboratory and field experiences, which are performed as part of the Engineering Design training.
- **A sample of laboratory reports and field activities should be available during the visit.**

4.1.10.4

- List the main modern Engineering tools and instruments used in the training process.

- Explain how these modern Engineering tools and instruments are incorporated into the training process.

4.1.12.2

- List the main objectives, contents and learning experiences used to provide comprehensive training and complement the technical aspects of the program.

4.1.13 Significant design experience:

4.1.13.1

- Detail the significant design experience with which the training process culminates and how it integrates the concepts of teamwork, project management and sustainable design.

4.1.13.2

- Explain how the design experience is supervised and evaluated by a licensed and qualified professor in the professional practice of engineering or other relevant professional discipline.
- **A sample of the reports of the designs, Works or final graduation projects carried out by the students must be available during the visit.**

4.1.14 Safety instruction:

4.1.14.1

- Describe the education and training activities developed on safety principles, standards, procedures and equipment.

4.1.14.2

- State whether emergency response teams or brigades have been formed and, if not, the projection in time to have them.
- **A sample of the safety regulations must be available during the visit.**

D. Training process.

4.1.15 Strategies for training.

4.1.15.1

- To describe the training experiences aimed at facilitating the beginning of the professional practice.
- Explain how students are engaged in these experiences.

4.1.15.2

- Explain how to verify that the techniques and instruments for the evaluation of learning are coherent with the training objectives and the nature of the activities carried out.

4.1.15.3

- Explain how to ensure that learning assessment instruments are developed on the basis of technical criteria that ensure their validity and reliability.

4.1.15.4

- Explain how to provide feedback on the results of the learning evaluation, in such a way that it contributes effectively to the training process of the person being evaluated and to the improvement of the training activities used.

4.1.16 Incorporation of Artificial Intelligence.

4.1.16.1

- Explain the level of integration of artificial intelligence tools in the training process, detailing how they are aligned with training objectives, achievement of attributes and commitment to sustainable development.

4.1.16.2

- List and explain the actions to ensure the development of technical skills for the use of Artificial Intelligence tools by the students of the career.

4.1.16.3

- State and explain measures to Foster the ability of learners to critically evaluate and use information generated by Artificial Intelligence.

4.1.16.4

- List and explain actions to promote the ethical, responsible and safe use of Artificial Intelligence tools.

4.1.16.5

- Present the regulatory framework with the policies that regulate the use of Artificial Intelligence in training.

E. Self-evaluation: SWOT Analysis - Syllabus.

- State the main strengths, weaknesses, opportunities and threats of the program in relation to the curriculum.
- Succinctly state the improvement actions proposed to overcome weaknesses, mitigate threats, maintain strengths and take advantage of opportunities.

Academics

A. General Characteristics

4.2.1 Recruitment

4.2.1.1

- Explain the academic hiring scheme: attraction, selection and permanence.

4.2.1.2

- Explain the induction scheme for academic staff joining the organizational environment.

4.2.1.3

- Indicate the policies that promote gender equity in the hiring of academic personnel.

4.2.2 Academic organizational climate:

4.2.2.1

- State the policies and actions developed to favor an adequate academic exercise.

4.2.1.2

- List the main quantitative and qualitative results of the last organizational climate evaluation, explain how they are used as input for continuous improvement and indicate the frequency of evaluations. Indicate the actions taken to solve weaknesses and maintain and improve the strengths evidenced.

4.2.1.3

- Explain how the results of the organizational climate assessment are disseminated to the academic community.
- **A sample of the instruments used to assess the organizational climate, the results obtained and the means to make them known to the academic community should be made available to the visiting team.**

4.2.3 Number of teachers:

4.2.3.1

- Indicate the total number of academics in the program and show the percentage that are linked to subjects with a majority content in Engineering Sciences or Engineering Design who work full time. Duly justify the above data.

4.2.3.2

- Indicate the correspondence between full-time academics and the number of curricular axes associated with engineering sciences and engineering design.

4.2.3.3

- To show how the allocation and proportion of work in the academic workload is equitable for the academics of the career, including those with part-time contracts.

4.2.3.4

- Demonstrate how the hiring of full-time academics in the areas that the career considers relevant and where a greater need has been detected has been privileged.

4.2.3.5

- Indicate the number and percentage relative to the total number of part-time academic staff and show their hours of employment.

4.2.3.6

- Indicate the total number of mathematics and natural science teachers and the percentage that work full time. Justify this data.

4.2.4 Academic and administrative careers:

4.2.4.1

- Explain the scale of academic and administrative categories used in the institution and how it is applied.

4.2.5 Academic Council or equivalent:

4.2.5.1

- Indicate the frequency of meetings of the Academic Council and its composition.

4.2.5.2

- To show how the management authority of the career follows up and verifies the execution of the agreements of the academic council.

4.2.5.3

- Explain the extent to which the Board of Academics has authority and responsibility for the academic aspects of the program. If applicable, provide an authoritative statement of these. State how the independence of the faculty, with respect to the academic aspects of the program, from the administration of the institution is assured.
- **The minutes book of the Board of academics must be available to the visiting team.**

4.2.6 Curriculum and Attributes Committee:

4.2.6.1

- Explain the actions developed by the curriculum and attributes committee to keep the curriculum, subject syllabi and achievement of attributes up to date.

4.2.6.2

- List the academics that make up the curriculum and attributes committee, their CFIA or corresponding professional association card number. If this requirement is not met by any of the academics, provide the pertinent explanations.

4.2.6.3

- Indicate the frequency of meetings of the curriculum and attributes committee.
- **The minutes book of the curriculum and attributes committee should be available to the visiting team.**

4.2.7 Academic workload. 4.2.7.1- 4.6.7.2- 4.2.7.3

Teacher's name: Subjects with majority content of Sciences of the Engineering and Engineering Design	Type of contract: Full time (FT), PART TIME (pt), Indicate the number of hours.	Number of courses/students served	Percentage of time dedicated to: a. Teaching of classes b. Laboratory	Percentage of time dedicated to: a. Attention and academic guidance b. Lesson preparation c.	Percentage of time spent on research projects	Percentage of time dedicated to outreach or social projection projects.	Percentage of time dedicated to innovation projects	Percentage of time spent on outreach projects
1.		/	a. b. c.	a. b.				
2.		/	a. b. c.	a. b.				
...								
n.		/	a. b. c.	a. b.				

4.2.8 Research, extensión, innovation and linkages

4.2.8.1

- Indicate the percentage of full-time academics who teach the subjects Engineering Sciences or Engineering Design have participated or are participating in a research, social outreach, innovation or linkage project. The information must be from the last three years prior to the visit.

4.2.8.2

- Summarize the main results, effects or impacts of the participation of academics in research, extension, innovation and liaison projects.

4.2.8.3

- Indicate the strategies and actions used by academics to incorporate the results of their own or other people's research in their teaching work.
- Indicate the way in which students' research skills are promoted.
- Indicate how student participation in community outreach activities, innovation or linkage with the productive and professional sector is encouraged.

4.2.9 Performance evaluation:

4.2.9.1

- A sample of the teaching evaluation instrument must be attached.

4.2.9.2

- Explain how the opinions of students and school management are taken into account in the teacher evaluation.

4.2.9.3

- Explain how teachers are informed about the contents and means for their evaluation.

4.2.9.4

- Indicate the frequency of application of the performance evaluation instrument.

4.2.9.5

- Explain the specific actions used if the teacher evaluation shows unsatisfactory rates and the actions to encourage good performance.

4.2.9.6

- To detail effective strategies and actions to stimulate good teaching performance.

4.2.10 Job stability:

4.2.10.1

- Describe the policy and actions to encourage the permanence of the best academics in the career.

4.2.10.2

- Describe the hiring model and how it ensures the permanence in the program of the best qualified teachers.
- Report the percentage of teachers with tenure or equivalent.

4.2.11 Teaching update:

4.2.11.1

- Describe the institutional or departmental training program related to university teaching.

4.2.11.2

- Report the record of participation and evaluation of academics in the continuing education program in the last 3 years.

Name of the academic	Course name	Institution	Year	Duration
1.				

2.				
...				
n.				

4.2.12 Commitment to continuous improvement in teaching:

4.2.12.1

- Show teaching performance charts for the last 3 years.

Name of the academic	Average evaluation Year n-2	Average evaluation Year n-1	Average evaluation Year n
1.			
2.			
...			
n.			

4.2.13 Commitment to the profesión, training and sustainable development:

4.2.13.1

- Specify the activities carried out by academics to make students aware of the importance of joining CFIA or the corresponding professional association and the associated ethical commitment.

4.2.13.2

- List the activities carried out by academics to Support the improvement of the curriculum, teaching and learning strategies.
- List the extracurricular activities and actions, related to the program, that facilitate the achievement of the attributes.

4.2.13.3

- List the actions of academics to encourage awareness, commitment and effective actions for the achievement of sustainable development objectives related to the professional field of action that is the object of the training process.

B. Academic characteristics

4.2.14 Academic background: 4.2.14.1-4.2.14.2-4.2.14.3-4.2.14.4

Teacher's name:	Highest academic degree obtained	Year/Institution	Certifications obtained
1.			1. 2. ... n
2.			
...			
n.			

4.2.15 Academic production: 4.2.15.1- 4.2.15.2

Teacher's name:	Bibliographic record of the publication of recent publications (last 5 years)	Main topics of publications
1.	1. ... n.	
2.		
3.		
...		
n.		

4.2.16 University academic experience: 4.2.16.1- 4.2.16.2

Name of the academic:	Years of academic experience university	Institution where he developed his academic university activities.
1.		
2.		
3.		
...		
n.		

C. Professional features

4.2.17 Incorporation and profesional qualification: 4.2.17.1- 4.2.17.2

Name of faculty: Full-time (FT) and part-time (PT) who provide courses with major content in Engineering Science and Engineering Design	Year of incorporation to CFIA or corresponding professional association	CFIA card number or association corresponding professional
1.		
2.		
3.		
...		
n.		

4.2.18 Membership in societies, professional associations and committees technical: 4.2.18.1

Name of faculty: Full-time (FT) and part-time (PT) who provide courses with major content in Engineering Science and Engineering Design.	Societies, professional associations, technical committees to which it belongs or certification period
1.	
2.	
3.	
...	
n.	

4.2.18.2

- List the main results (outputs, outcomes or impacts) of the academics' participation in societies, associations and technical committees.

4.2.19 Professional updating: 4.2.19.1- 4.2.19.2- 4.2.19.3

Name of full-time (FT) or part-time (PT) faculty who teach subjects with a major content in Engineering Science and Engineering Design	Professional updating activities	Location	Type of activity	Year	Duration
1.					
2.					
...					
n.					

4.2.19.4

- List the main results (products, effects or impacts) on the training process or career of the academics' participation in the different professional updating activities.

4.2.20 Professional experience: 4.2.20.1-4.2.20.2

Name of academic: Full time (FT) or part-time (PT):	Years of professional experience	Company or projects with professional responsibility
1.		
2.		
...		
n.		

D. Self-evaluation: SWOT-Academic Analysis.

- State the main strengths, weaknesses, opportunities and threats of the career; referred to the teaching faculty.
- Succintly state the proposed improvement actions to overcome weaknesses, mitigate threats, maintain strenghts and take advantage of opportunities.

4.3 Infrastructure

A. Buildings.

4.3.1 Attention to emergencies and contingent situations:

4.3.1.1

- List and explain the plans and protocols used to deal with emergencies and contingency situations.

4.3.1.2

- Indicate the means used to make the plans and protocols known to the users of the buildings.

4.3.1.3

- Indicate the measures used to verify the effectiveness of the plans and protocols used to deal with emergencies and contingencies.
- **A sample of the documents containing the emergency plans and protocols should be available when the assessment team visits the different buildings.**

4.3.2 Classrooms and auditoriums:

4.3.2.1- 4.3.2.2- 4.3.2.3- 4.3.2.4- 4.3.2.5

- Conduct a general assessment of the classrooms and furnishings used by the program, referring to:
 - Quantity
 - Physical conditions
 - Accessibility
 - Space
 - Comfort
 - Environmental conditions: illumination, ventilation, noise insulation
 - Safety and occupational health and environmental hygiene conditions

4.3.2.6

- Indicate how the academic and administrative authorities ensure that the people who use the classrooms and auditoriums are aware of the established safety, occupational health and environmental hygiene provisions and procedures.

4.3.2.7

- Explain the maintenance program for classrooms and auditoriums.

4.3.3 Laboratories and/or Workshops:

4.3.3.1- 4.3.3.2- 4.3.3.3- 4.3.3.4- 4.3.3.5

- Make a general assessment of the laboratories, workshops and furniture used by the program (both for natural sciences and for the development of Engineering Sciences and Engineering Design activities), referring to:
 - Quantity
 - Physical conditions
 - Accessibility
 - Space
 - Comfort
 - Environmental conditions: illumination, ventilation, noise insulation
 - Safety and occupational health and environmental hygiene conditions

4.3.3.6

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the provisions and procedures for safety, occupational health and environmental hygiene when using laboratories and/or workshops.

4.3.3.7

- Explain the maintenance program for laboratories and/or workshops.

4.3.4 Computer laboratories:

4.3.4.1- 4.3.4.2- 4.3.4.3- 4.3.4.4- 4.3.4.5

- Indicate the policies for use and hours of operations of the computer labs and their furniture.
- Also note:
 - Quantity

- Physical conditions
- Accessibility
- Space
- Comfort
- Environmental conditions: illumination, ventilation, noise insulation
- Safety and occupational health and environmental hygiene conditions.

4.3.4.6

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using computer laboratories.

4.3.4.7

- Explain the computer lab maintenance program.

4.3.4.8

- Explain the functions and actions of the IT management and support unit to meet the requirements of virtual training.

4.3.5 Facilities for sports, cultural, food and bookstore activities.

4.3.5.1

- Mention if the Institution has these facilities, or makes access to them possible by means of: agreements, leasing contracts, loans or others.

4.3.5.2

- Indicate the condition of these facilities and how they promote the welfare of the academic community.

4.3.5.3

- Indicate the measures taken by the academic and administrative authorities to ensure that teachers, students and support staff are aware of the safety, occupational health and environmental hygiene provisions and procedures when using the facilities for sports, cultural, food and bookstore activities.

4.3.5.4

- Explain the maintenance program of the facilities for sports, cultural, food and bookstore activities.

4.3.6 Academic facilities:

4.3.6.1

- Indicate whether there are facilities for full-time academics. Indicate the rules on the allocation and the way in which these are conditioned to favor the preparation of lessons, attention of students and other activities inherent to the functions of the academic exercise in engineering.

4.3.6.2

- Indicate whether or not there is a space for interaction, exchange of ideas, coordination of activities and attention to students for part-time academics.

4.3.6.3

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using the assigned facilities.

4.3.6.4

- Explain the maintenance program of the campuses and spaces for the use of academics.

4.3.7 Library:

4.3.7.1- 4.3.7.2- 4.3.7.3- 4.3.7.4

- Make a general appraisal of the library facilities and their furnishings referring to:
 - Quantity
 - Physical conditions
 - Accessibility conditions
 - Space
 - Job openings
 - Environmental conditions: lighting, ventilation and noise insulation.
 - Safety conditions, occupational health, environmental hygiene.
 - Specify opening hours for students, academics and the general public.

4.3.7.5

- Specify if there are spaces for individual or group study, as well as for the development of conferences.

4.3.7.6

- Specify the options available to users for accessing collections, remote documentation centers, virtual or online libraries and the Internet.

4.3.7.7

- Indicate the measures taken by the academic and administrative authorities to ensure that faculty, students and support staff are aware of the safety, occupational health and environmental hygiene provisions and procedures when using library facilities.

4.3.7.8

- Explain the maintenance program for library facilities.

4.3.8 Facilities for administrative and Support personnel:

4.3.8.1- 4.3.8.2- 4.3.8.3- 4.3.8.4

- Conduct a general assessment of the facilities and their furnishings for administrative and support staff, referring to:
 - Quantity
 - Physical conditions
 - Accessibility conditions

- Space
- Job openings
- Environmental conditions: lighting, ventilation and noise insulation
- Safety conditions, occupational health, environmental hygiene, etc.

4.3.8.5

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using the facilities for administrative and support personnel.

4.3.8.6

- Explain the facilities maintenance program for administrative and support staff.

B. Equipment.

4.3.9 Resources for audiovisuals:

4.3.9.1- 4.3.9.2

- Mention the quantity, availability and condition of the audiovisual resources used in theory classes, laboratories and workshops.

4.3.9.3

- Indicate the measures taken by the academic and administrative authorities to ensure that teachers, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using audiovisual resources.

4.3.9.4

- Explain the maintenance program for audiovisual resources.

4.3.10 Laboratory or workshop equipment:

4.3.10.1

- Refer to the quantity, variety and condition of laboratory or workshop equipment, including safety equipment and measuring instruments.

4.3.10.2

- Refer to the quantity and condition of furniture for storage and protection of laboratory equipment.

4.3.10.3

- Indicate the measures taken by the academic and administrative authorities so that professors, students and support personnel are aware of the safety, occupational health

and environmental hygiene provisions and procedure when using laboratory or workshop equipment.

4.3.10.4

- Explain the facility maintenance program for laboratory or shop equipment.

4.3.11 Computer and communications equipment:

4.3.11.1- 4.3.11.2

- The number, current status and condition of computer and communications equipment, including a list of the main peripheral resources available, as well as connectivity and Internet access facilities.

4.3.11.3

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using computer and communications equipment.

4.3.11.4

- Explain the facilities maintenance program for computer and communication equipment.

4.3.11.5

- Describe the virtual educational platform or online learning system (LMS) that the course has.

4.3.12 Equipment for administrative and Support personnel:

4.3.12.1- 4.3.12.2

- Mention the quantity and state of operation of the main equipment used by administrative and support personnel.

4.3.12.3

- Indicate the measures taken by the academic and administrative authorities to ensure that teachers, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using equipment for administration and support personnel.

4.3.12.4

- Explain the facilities maintenance program for equipment for management and support staff.

C. Materials.

4.3.13 Laboratory and workshop materials:

4.3.13.1- 4.3.13.2

- Submit a list of reusable or consumable materials available to the institution and the program to support laboratory or workshop practices, as required by the curriculum. The list must indicate the quantity and, if applicable, the condition.

4.3.13.3

- Refer to the quantity and condition of furniture for storage and protection of laboratory and workshop materials.

4.3.13.4

- Indicate the measures taken by the academic and administrative authorities to ensure that professors, students and support personnel are aware of the safety, occupational health and environmental hygiene provisions and procedures when using laboratory and workshop materials.

4.3.14 Computer Programs:

4.3.14.1- 4.3.14.2

- List the main application programs required by the program subjects, indicating their version and, if applicable, their license number. If free or open source software is used, please indicate it.

4.3.15 Books, manuals, and specialized periodicals:

4.3.15.1- 4.3.15.2- 4.3.15.3

- List the bibliographic record of the main textbooks, reference books, technical data manuals and specialized periodicals, and indicate whether they are available in physical or electronic format. Categorize the information according to the development axes or thematic areas of the curriculum.

4.3.16 Laboratory or workshop practice manuals:

4.3.16.1- 4.3.16.2- 4.3.16.3

- List laboratory or workshop practice manuals.
- **The laboratory or workshop manuals should be available to the evaluators at the time of the visit.**

4.3.17 Reference materials:

4.3.17.1- 4.3.17.2

- List the stock of graphic and audiovisual materials and information and communication media available to support teaching and student learning.
- **A sample of the graphic and audiovisual materials must be available in classrooms, laboratories or workshops at the time of the visit.**

D. Self-evaluation: SWOT-Infrastructure Analysis.

- State the program's main strengths, weaknesses, opportunities and threats related to infrastructure.
- Succinctly state the improvement actions proposed to overcome weaknesses, mitigate threats, maintain strengths and take advantage of opportunities.

4.4 Career management.

A. Administrative structure.

4.4.1 Career planning:

4.4.1.1

- Present an executive summary of the strategic plan or orientation, including its main aspects: mission, vision, values, quality policy and strategic objectives.

4.4.1.2

- Submit the current operating plan.

4.4.1.3

- Submit the general Budget execution plan in force.

4.4.1.4

- Explain the participation of the council, academic body or equivalent in the analysis and design of the strategic orientation or plan of the career.

4.4.2 Organization:

4.4.2.1

- Present the organizational chart of the administrative structure of the career.

4.4.2.2

- Explain how the administrative structure is relevant to the complete, diligent and efficient management of the service offered to students, academics and the general public.

4.4.3 Incorporation and performance:

4.4.3.1

- Indicate the number, time of Service, time assigned and qualities of the people in charge of administrative management.

4.4.3.2

- Indicate how many administrative Support staff are employed full time in the career.

4.4.3.3

- List the names of the people in charge of laboratories or workshops, assigned functions and competencies to perform them.

4.4.3.4

- Provide a general assessment of the attitude and commitment (main results of the organizational climate evaluation) of the program's administrative support staff, laboratory and workshop managers. Indicate the actions taken to solve weaknesses and maintain and improve the strengths evidenced.

4.4.3.5

- Submit a summary table with the performance evaluations of the persons in charge of administrative management for the last 3 years. Indicate the periodicity of the evaluations.

4.4.3.6

- Explain the policies and effective actions to promote gender equity in the hiring of its administrative and technical personnel.

4.4.4 Career management:

4.4.4.1- 4.4.4.2

- Submit a summary of the résumé of the executive authority of the career, indicating his or her CFIA or corresponding professional association card number or professional license, academic degrees and years of academic or professional experience.

4.4.4.3

- Indicate the time effective linkage (dedication) of the career management to the administrative management of the career.

4.4.4.4

- Make an overall qualitative assessment of the leadership of the career management. Refer to: commitment to quality, strategic vision, effective communication, empathy, good interpersonal relations and decision-making skills.

4.4.4.5

- State the efforts made by the career management for the effective attainment of the necessary resources for the development of the program.

B. Administrative policies.

4.4.5 Commitment to continuous improvement in administrative management:

4.4.5.1

- Attach the map with the main processes of the career.

4.4.5.2

- Indicate the management indicators linked to the identified processes.

4.4.5.3

- Indicate the level of achievement reached in the different indicators.

4.4.5.4

- State the corrective actions taken to solve the non-compliance with the established indexes.

4.4.5.5

- Provide a summary of the main aspects of the internal quality management system (IQAS). If not already in place, indicate the strategies and actions to ensure the quality of all services and activities.

4.4.6 Financial resources:

4.4.6.1

- Present a synthesis of the career Budget and its execution.

4.4.6.2

- Highlight the Budget items that Support the recruitment, retention and development of academic and career support personnel.

4.4.6.3

- To highlight the Budget items that enable the maintenance and renewal of equipment, infrastructure and materials.

4.4.7 Information and registration system:

4.4.7.1

- Describe the main characteristics of the institution's and the program's information and registration system. Explain the procedures to ensure that the information is complete, secure, reliable and up to date. Mention how this information is used for decision making.

4.4.7.2

- Show how the main academic indexes associated with students are extracted from the databases.

4.4.7.3

- Point out the data that is collected in the faculty and staff database.

4.4.7.4

- Explain the procedures for students to have access to certifications and records of their studies and grades.

- **During the evaluation visit, Access to the information and registration system for students, academic and administrative personnel must be available for consultation by the evaluators.**

4.4.8 Liaison with the professional and business sector:

4.4.8.1

- Explain the actions taken to encourage the linkage of the program, academics and students with the professional and business sector.

4.4.8.2

- Explain the policies and actions undertaken to encourage the involvement and participation of academics and students in the CFIA or the corresponding professional association, its committees and affiliated associations.

4.4.8.3

- Explain the policies and actions undertaken to encourage the understanding of incorporation and licensing as indicators of social responsibility, dignity of the profession, respect for colleagues and excellence in the provision of professional services.

4.4.9 Community outreach:

4.4.9.1

- Provide evidence of the policies and activities carried out to benefit the community and their main results: outputs, outcomes and impacts.

4.4.9.2

- Describe how the participation of students, teachers and administrative staff in activities that benefit the community is encouraged.

4.4.10 Promotion of and participation in research, technological development and innovation:

4.4.10.1

- List the policies to encourage the participation in research, innovation and technological development programs and projects of academics and students of the program. List the programs and projects and highlight their linkage with the corresponding institutional plans

4.4.10.2

- To point out the actions developed to incorporate the results of research, innovations and technological development projects in the training of the students of the career.

4.4.10.3

- List the centers, groups, networks or programs dedicated to scientific research, education, extension, innovation and liaison with which the career has a relationship and carries out joint activities.

4.4.10.4

- List the means available to the career for the dissemination of academic production, including research results, extension, innovation, linkage and final graduation works.

4.4.11 Occupational health, safety, environmental hygiene and sustainability:

4.4.11.1

- Describe the occupational health, safety and environmental hygiene program developed by the career.

4.4.11.2

- Explain how to ensure adequate conditions for the physical, mental and emotional well-being of the entire academic community.

4.4.11.3

- To list the guidelines, strategies and effective actions that make it possible to advance in the commitment to sustainable development.
- Highlight the results obtained: products, effects and impacts.

4.4.12 Administrative organizational climate:

4.4.12.1

- Show the main findings of the most recent organizational climate assessment (or equivalent instrument).

4.4.12.2

- Explain the derivative actions used to solve weaknesses, minimize threats, maintain and improve strengths and take advantage of opportunities.

4.4.13 Internationalization of the career:

4.4.13.1

- Explain how the career curriculum has a global focus, includes learning objectives and activities related to topics of global interest linked to the training area and sustainable development.

4.4.13.2

- Explain the programs and agreements that facilitate the Exchange of students and academic personnel.

4.4.13.3

- Explain how opportunities are sought for students to carry out internships in companies or organizations abroad.

4.4.13.4

- Explain how students, faculty and staff are encouraged to participate in visits to international institutions and events.

4.4.13.5

- Explain how participation in international education and collaboration networks is promoted.

4.4.13.6

- List research and development projects in conjunction with international entities.

4.4.13.7

- Explain programs and events that promote cultural diversity.

C. Rules and regulations:

4.4.14 Regulations:

4.4.14.1

- Succinctly describe the regulations for academic and administrative personnel.

4.4.14.2

- Succinctly describe the regulations for the teaching, learning and evaluation processes.

4.4.14.3

- Describe succinctly the regulations for final graduation papers.

4.4.14.4

- Describe succinctly the regulations for students.

4.4.14.5

- Succinctly describe the regulations for the control of the curriculum. Explain the participation of the management and academics of the course in the elaboration, application and modification of these regulations.

- **A sample of the regulations must be available during the evaluation visit.**

4.4.15 Recognition of previous studies:

4.4.15.1

- Succinctly describe the regulations for the recognition of previous studies.

4.4.15.2- 4.4.15.3

- Explain the means available to ensure that all students meet at least 50% residency; in the curriculum and that awards do not exceed the maximum allowable.

4.4.15.4

- Explain the means available to ensure that the recognition of previous studies involving Engineering Science and Engineering Design aspects corresponds only to studies in a university level program accredited by the CFIA Accreditation Council or an agency recognized by it.

4.4.14.5

- Explain the admission policies, which are used for the recognition of previous studies, mathematics, natural sciences or complementary studies.
- **A sample of the corresponding regulations must be available during the evaluation visit.**

D. Self-evaluation: SWOT Analysis-Career Management

- State the main strengths, weaknesses, opportunities and threats of the program, referring to the administration of the institution and the program.
- Succinctly state the improvement actions proposed to overcome weaknesses, mitigate threats, maintain strengths and take advantage of opportunities.

4.5 Students and graduates.

A. From students.

4.5.1 Student environment:

4.5.1.1

- List the actions that favor the integral development of students.

4.5.1.2

- Provide a general assessment of the students' attitude and commitment to the career. This assessment should be supported with some concrete examples, which should be cited.

4.5.2 Admission:

4.5.2.1

- Present the policies and processes for admission to the career.

4.5.2.2

- Indicate the criteria and procedures to verify that those interested in pursuing the training provided by the career meet the established entry profile.

4.5.2.3

- Explain how the relevant information about the academic-professional profile, current curriculum, admission requirements and conditions, as well as the necessary resources to initiate the teaching and learning processes of the degree program are made public.

4.5.3 Process, promotion and graduation policies:

4.5.3.1

- Present the processes and policies for student promotion and graduation.

4.5.3.2

- To present the record with the main student academic performance indexes, such as subject approval rate, terminal efficiency rate, dropout rate and retention rate.

4.5.3.3

- Present evidence of how the program ensures that all students meet the graduation requirements, and that the training plan followed by each student is relevant to the program subject to accreditation.

4.5.4 Academic counseling and guidance:

4.5.4.1

- Explain the institutional and academic unit's efforts to provide counseling and academic guidance to students in the career.

4.5.4.2

- Point out the counseling and orientation actions to guide people to enter the career.

4.5.5 Performance improvement strategies:

4.5.5.1

- Explain the actions that are developed to address the academic progress of students in the program.

4.5.5.2

- Explain corrective actions if evaluations show low rates of academic performance.

5.6 Student welfare office:

4.5.6.1

- Describe the guidelines that the career has to ensure student welfare.

4.5.6.2

- Describe the instances used to channel student initiatives, offer guidance on administrative processes, their rights and duties, and equal access to available scholarships and financial aid.

4.5.7 Student associations:

4.5.7.1

- Explain the actions developed to favor student participation in the development and improvement of the career and the training program.

4.5.7.2

- Explain the actions developed to stimulate the creation, permanence and development of student associations or groups.

4.5.8 Grade audit:

4.5.8.1- 4.5.8.2

- Indicate the monitoring, control and execution actions and their effectiveness, developed by the career authorities, to ensure that all persons who are admitted remain and complete the training process, comply with the applicable procedures and regulations.

B. From program graduates.

4.5.9 Graduate information:

4.5.9.1

- Describe the general characteristics of the graduate database. List how it is kept complete, secure, reliable and up-to-date.

4.5.9.2

- To present the results of the last study carried out, in order to know the validity, current validity and perception of the career and the training program of the graduates.

4.5.9.3

- Indicate the frequency with which follow-up studies of graduates are conducted.

4.5.9.4

- Explain how the results of the studies are used as an input for the continuous improvement of the career and the training program.

4.5.9.5

- Mention the opportunities offered by the career for continuing education of graduates.

D. Self-Evaluation: SWOT Analysis-Students and graduates.

- State the main strengths, weaknesses, opportunities and threats of the program; referred to students and graduates.
- Succinctly state the improvement actions proposed to overcome weaknesses, mitigate threats, maintain strengths and take advantage of opportunities.

6. Appendices:

6.1 Program faculty information

- For each of the program faculty, provide the following information:

1. Name of the teacher and category in the academic hierarchy	
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2. Department	
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3. Property	Interim	Contract for a definite perior of time	Other (specify)

4. Academic Degrees	Field	Date obtained	Institution/country

5. Original date of hire - category:	
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6. Progress in the institutional ladder	
Category	Date

7. Current professional status (according to Art. 5 CFIA Organic Law):	
Professional Association – Professional Registration No:	Date:

8. Current memberships (Professional and scientific societies, commissions or associations of the CFIA)	
1.	2.
3.	4.
5.	6.

9. Sabbatical leaves or leaves of absence		
Year	Organization/Activity	Location

10. Courses taught in the last three years (code and name of the course):	
Grade	Postgraduate

11. Number of supervised students' final Works (tesis, projects)	Licentiate degree	Master's degree	PhD
Completed (last 3 years)			
Completed (throughout academic life)			
In development			

12. Grants/Publications	Specialized magazines	Conference in congresses	Other	Patents
Quantity (last 6 years)				
Quantity (throughout academic life)				

13. Financing achieved	Research funds from the CONICIT	Other agencies	Research contracts	For other purposes Not for research
Año actual	¢	¢	¢	¢
Total (last 5 years)	¢	¢	¢	¢

14. Brief description of main areas of professional and academic interest (Technical and research interests, collaboration with technical and professional associations, participation in committees for the development of technical standards, etc.).

15. Industry experience.

16. Awards, honors or other pertinente information.

Date: _____ Signature: _____

6.2 Program subject information

- For each of the subjects in the program, provide the following information:
 - A. CODE AND NAME OF THE SUBJECT:
 - B. REFERENCE IN THE ACADEMIC OFFER:
 - C. TYPE OF SUBJECT:
 - D. TOTAL NUMBER OF CLASSES:
 - E. MINIMUM/MAXIMUM NUMBER OF STUDENTS PER CLASS:
 - F. TOTAL NUMBER OF LABORATORY/TUTORIAL SESSIONS:
 - G. NUMBER MINIMUM/MAXIMUM OF STUDENTS PER SESSION FROM LABORATORY/TUTORIAL:
 - H. MAIN CONTENTS:
 - 1.
 - 2.
 - ...
 - n.
 - I. PRESCRIBED TEXTBOOK:
 - J. HOURS OF CLASS PER WEEK:
 - K. COMPUTER EXPERIENCE:
 - L. LABORATORY EXPERIENCES:
 - 1.
 - 2.
 - ...
 - n.
 - M. TEACHER IN CHARGE OF THE COURSE:
 - N. OTHER INSTRUCTORS:
 - O. TEACHER ASSISTANTS (NUMBER/HOURS):
 - P. CURRICULAR CONTENT (NUMBER OF ACCREDITATION UNITS):

Total:	UA
Basic Sciences:	UA
Engineering Sciences:	UA
Engineering Design:	UA
 - Q. AVERAGE GRADE (%) /FAILING RATE (%):
 - R. EXPLANATORY NOTES ON INCONSISTENCIES WITH ACADEMIC OFFERINGS (IF APPLICABLE):
UPDATE: dd/mm/yyyy

6.3 List of items to be available to the assessment team during the visit:

1. A sample of laboratory reports and field activities.
2. A sample of the results of the evaluations applied to the students containing high grade, low grade and average grade exams.
3. A sample of the regulations, referring to safety.
4. A sample of the designs made by the students.
5. A sample of the graduation work reports.
6. A sample of the instruments used to assess the organizational climate and the results obtained.
7. The faculty council notebook or minute book (or equivalent).
8. A sample of the program's teacher evaluation.
9. A sample of the documents containing the emergency plans and protocols.
10. Laboratory or workshop practice manuals.
11. The strategic plan or orientation of the program.
12. A sample of regulations for teaching and administrative staff, teaching, learning and evaluation processes, final assignments, students, curriculum control, recognition of studies, etc.
13. A sample of the minutes, which reflects the main modifications to the curriculum.
14. Enable access in "observer or consultation" mode to the information and registration system for students, academic and administrative personnel.

