



Academic Quality Improvement Plan Report

Universidad Peruana de Ciencias Aplicadas

Graduate School

Master's Degree in Construction Management

December 2023



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Academic Quality Improvement Plan Report Master’s Degree in Construction Management

This report highlights the findings of 2023 assessment cycle.

1. Strategic Plan

The Strategic Pan was reviewed and updated in 2023 year. The Strategic Plan can be found at: [Link](#).

2. Mission Statement of the Degree Program:

To educate professional leaders and agents of change in the construction and real estate sector, capable of identifying opportunities and innovating in the use of technologies, materials and management methods so as to offer concrete solutions to real problems in the industry

3. Degree Program Objectives:

The following objectives are part of the strategic plan that relates to the Master program and will be reviewed annually. Strategic objectives measurements with results are presented in table 3.1.

Table 3.1. Program Strategic Objectives

Strategic Objective	Indicators	Frequency	Goal	Evaluation Tool	Results 2023
Attaining the level of achievement in the ACCE SLOs	Percentage of achievement of each ACCE SLO	Data collected at the end of each course and analyzed annually	60%	Rubrics	SL01: 95.7% SL02: 87.0% SL03: 100.0% SL04: 88.3% SL05: 75.9% SL06: 80.0% SL07: 100.0% SL08: 89.7% SL09: 72.4% SL10: 66.7%
Maintaining the level of impact of the program on the professional lives of graduates	Percentage of answers pointing to professional improvements	Every two years	70%	Online Graduate Survey	84.4%
Maintaining faculty approval level	Percentage of faculty members with a score of no less than 8	Every semester	80%	Academic Evaluation by course	89% (as of October 2023)
Program faculty score greater than 7.5	Average grade of program faculty	Annual (previous year)	≥ 7.5	360° Evaluation	2022*: 9.06
Maintaining completion rate within 100%	Number of students who have fulfilled graduation requirements at 100% of the expected time (four years: 2 years of studies and 2 years to complete the thesis), over total	Annual	40%	List of Graduates	43% (as of November 2023)

Strategic Objective	Indicators	Frequency	Goal	Evaluation Tool	Results 2023
	incoming students for each admission cohort, respectively				
Strengthening the relationship of the program with the Construction Industry	Number of events ¹ with representatives of the sector	Annual (suggested)	As of 2023: 1 Beginning in 2024: 2	List of Events	1 event
Achieving program accreditations according to the ACCE model	Compliance with the work plan within the established deadlines	N/A	Program accreditation by 2024	ACCE Work Schedule	In progress.

4. Program Learning Outcomes

The program graduate profile embeds the following program learning outcomes (PLOs):

- **Global Vision:** The ability to anticipate changes in the environment and determine their impact on the organization in order to identify opportunities and propose consistent strategies for the organization.
- **Decision Making:** The ability to choose the most adequate alternative in situations with a certain level of uncertainty, using information sources and technologies for the analysis of different options, their benefits, costs, risks, and stakeholders, and their impact on the organization's strategic management.
- **Managerial Leadership:** To be agents of change through the ability to represent and communicate an organization's mission and vision, motivate teams to identify with them, and achieve the goals set out. This implies fostering a challenging and harmonious environment, and the ability to maximize the talents of people at all levels.
- **Planning and Organization:** The ability to plan and organize the work of their teams and other areas under their responsibility in an efficient and effective manner. Students lead interdependent work processes aligned with strategic or institutional objectives. In addition, they establish monitoring and corrective procedures and mechanisms that allow for effective or immediate actions to be taken.

As for ACCE SLOs, these are envisioned in the Program Learning outcomes, as detailed in Table 4.1:

¹ Events: Conferences, discussion panels, lectures, etc.

Table 4.1. Correlation between SLO and the Program Learning Outcomes

Global Vision	Decision Making	Managerial leadership	Planning and Organization
<ul style="list-style-type: none"> • Apply advanced construction management practices. • Understand the principles of leadership in business. • Understand risk management 	<ul style="list-style-type: none"> • Apply decision-making techniques. 	<ul style="list-style-type: none"> • Understand the principles of leadership in business. 	<ul style="list-style-type: none"> • Create effective and professional written communications • Apply research methods. • Apply advanced communication technology. • Apply professional ethics. • Apply advanced construction management practices. • Understand the principles of leadership in business. • Apply critical thinking. • Apply problem-solving techniques. • Apply decision-making techniques. • Understand risk management

In table 4.2 below, the results for Program Learning Outcomes (PLOs) are presented and calculated, taking into consideration the average results from each Student Learning Outcome (SLO) assessment as outlined in Table 2:

Table 4.2 Program Learning Outcomes Results

Program Learning Outcomes	2023 Results
Global Vision	76.3%
Decision Making	88.3%
Managerial Leadership	66.7%
Planning and Organization	85.6%

The improvement actions are presented in section 5.4.

5. ACCE Student Learning Outcomes – Implementation Plan and Results

5.1 Matrix Curriculum vs Student Learning Outcomes

ACCE Student Learning Outcomes (SLO)	Term 1			Term 2			Term 3			Term 4			Term 5			Term 6											
	Competitive Strategy	Human Resources Administration and Management	Financial and Cost Accounting	Managerial Leadership and Team Building	Construction Project Management	Construction Project Planning and Control	Production Management	Legal Regime of Construction	Financial Management	Supply Chain Management	Public Investment Projects	Technical Administration and Collaborative Contracts	Lean Construction	Equipment and Machinery Management	BIM Management	Negotiation	Safety Management and Risk Prevention in Construction	Collaborative Contracts (IPD-VDC-BIM)	Formulation and Assessment of Real Estate Projects	Thesis 1	Ethics, Social Responsibility, and Compliance	Organization and Management of Construction Companies	Strategic Quality Management	Special Constructions and Innovation in Construction	Infrastructure Investment Project Management	Thesis 2	
1. Create effective and professional written communications															DA					IA							
2. Apply Critical Thinking															DA						IA						
3. Apply problem solving techniques.																		DA			IA						
4. Apply decision making techniques.													DA								IA						
5. Apply research methods.																		DA			IA						
6. Apply advanced communication technology.														DA							IA						
7. Apply professional ethics.																					IA	DA					
8. Apply advanced construction management practices.																					IA		DA				



9. Understand risk management.																			IA		DA					
10. Understand the principles of leadership in business.																				IA		DA				

Note: (DA) Direct Assessment

(IA) Indirect Assessment

5.2 Assessment Methods - SLO

SLOs	Course	Assessment Method		Evaluated Assignments	Goal	Data Gathering	Data Interpretation
1. Create effective and professional written communications.	Negotiation	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
2. Apply Critical Thinking.	Negotiation	Direct Assessment	Rubric	Report	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
3. Apply problem solving techniques.	Formulation and Assessment of Real Estate Projects	Direct Assessment	Rubric	Assignment N° 3	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
4. Apply decision making techniques.	Equipment and Machinery Management	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors

SLOs	Course	Assessment Method		Evaluated Assignments	Goal	Data Gathering	Data Interpretation
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
5. Apply research methods.	Collaborative Contracts (IPD-VDC-BIM)	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
6. Apply advanced communication technology.	BIM Management	Direct Assessment	Rubric	Individual Case	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
7. Apply professional ethics.	Ethics, Social Responsibility, and Compliance	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
8. Apply advanced construction	Organization and Management of Construction Companies	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors

SLOs	Course	Assessment Method		Evaluated Assignments	Goal	Data Gathering	Data Interpretation
management practices.	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
9. Understand risk management.	Organization and Management of Construction Companies	Direct Assessment	Rubric	Final Assignment	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty
10. Understand the principles of leadership in business.	Organization and Management of Construction Companies	Direct Assessment	Rubric	Final Exam	60% of students with grades greater than or equal to 14	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty Course Instructors
	Thesis 1	Indirect Assessment	Survey	None	70% students in levels 3 -5	Data collected at the end of each course and analyzed annually	Academic Director FT Faculty

5.3 Implementation Schedule 2023

SLOs	Course	jun-23	jul-23	ago-23	sep-23	oct-23	nov-23	dic-23
1. Create effective and professional written communications.	Negotiation			X	X			
	Thesis 1							X
2. Apply Critical Thinking.	Negotiation			X	X			
	Thesis 1							X
3. Apply problem solving techniques.	Formulation and Assessment of Real Estate Projects	X						
	Thesis 1							X
4. Apply decision making techniques.	Equipment and Machinery Management		X	X				
	Thesis 1							X
5. Apply research methods.	Collaborative Contracts (IPD-VDC-BIM)		X					
	Thesis 1							X
6. Apply advanced communication technology.	BIM Management						X	
	Thesis 1							X
7. Apply professional ethics.	Ethics, Social Responsibility, and Compliance				X			
	Thesis 1							X
8. Apply advanced construction management practices.	Organization and Management of Construction Companies					X		
	Thesis 1							X
9. Understand risk management.	Organization and Management of Construction Companies					X		
	Thesis 1							X
10. Understand the principles of leadership in business.	Organization and Management of Construction Companies					X		
	Thesis 1							X

5.4 Assessment Performance Criteria Results for Student Learning Outcomes and Improvement Actions

SLO	Course	Assignment	Assessment Method	Goal	2023 Results	Improvement Actions
1. Create effective and professional written communications.	Negotiation	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	95.7%	- Enhance the course by incorporating a new case based on professional experiences.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
2. Apply Critical Thinking.	Negotiation	Report	Rubric	60% of students with grades greater than or equal to 14	87.0%	- Enhance the course by incorporating a new case based on professional experiences.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
3. Apply problem solving techniques.	Formulation and Assessment of Real Estate Projects	Assignment N° 3	Rubric	60% of students with grades greater than or equal to 14	100.0%	- The course professors are evaluating alternatives to incorporate a summary of previous concepts for a more seamless development of the course.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
4. Apply decision making techniques.	Equipment and Machinery Management	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	88.3%	- Maintaining implemented actions and continuing monitoring results.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
5. Apply research methods.	Collaborative Contracts (IPD-VDC-BIM)	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	75.9%	- Maintaining implemented actions and continuing monitoring results.
	Thesis 1	None	Survey	70% students in levels 3 -5	80.8%	

SLO	Course	Assignment	Assessment Method	Goal	2023 Results	Improvement Actions
6. Apply advanced communication technology.	BIM Management	Individual Case	Rubric	60% of students with grades greater than or equal to 14	80.0%	- Maintaining implemented actions and continuing monitoring results.
	Thesis 1	None	Survey	70% students in levels 3 -5	92.3%	
7. Apply professional ethics.	Ethics, Social Responsibility, and Compliance	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	100.0%	- Encourage students to share their best practices in the profession, fostering ethical behavior.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
8. Apply advanced construction management practices.	Organization and Management of Construction Companies	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	89.7%	- Maintaining implemented actions and continuing monitoring results.
	Thesis 1	None	Survey	70% students in levels 3 -5	96.2%	
9. Understand risk management.	Organization and Management of Construction Companies	Final Assignment	Rubric	60% of students with grades greater than or equal to 14	72.4%	- Maintaining implemented actions and continuing monitoring results.
	Thesis 1	None	Survey	70% students in levels 3 -5	84.6%	
10. Understand the principles of leadership in business.	Organization and Management of Construction Companies	Final Exam	Rubric	60% of students with grades greater than or equal to 14	66.7%	- Enhance the course by integrating students' professional experiences in leadership in business best practices
	Thesis 1	None	Survey	70% students in levels 3 -5	100.0%	



Appendix 1 – Enrollment and Graduation Results 2023

- Annual number of graduates of the Degree Program: 28
- Number of annual enrollments in the Degree Program: 383