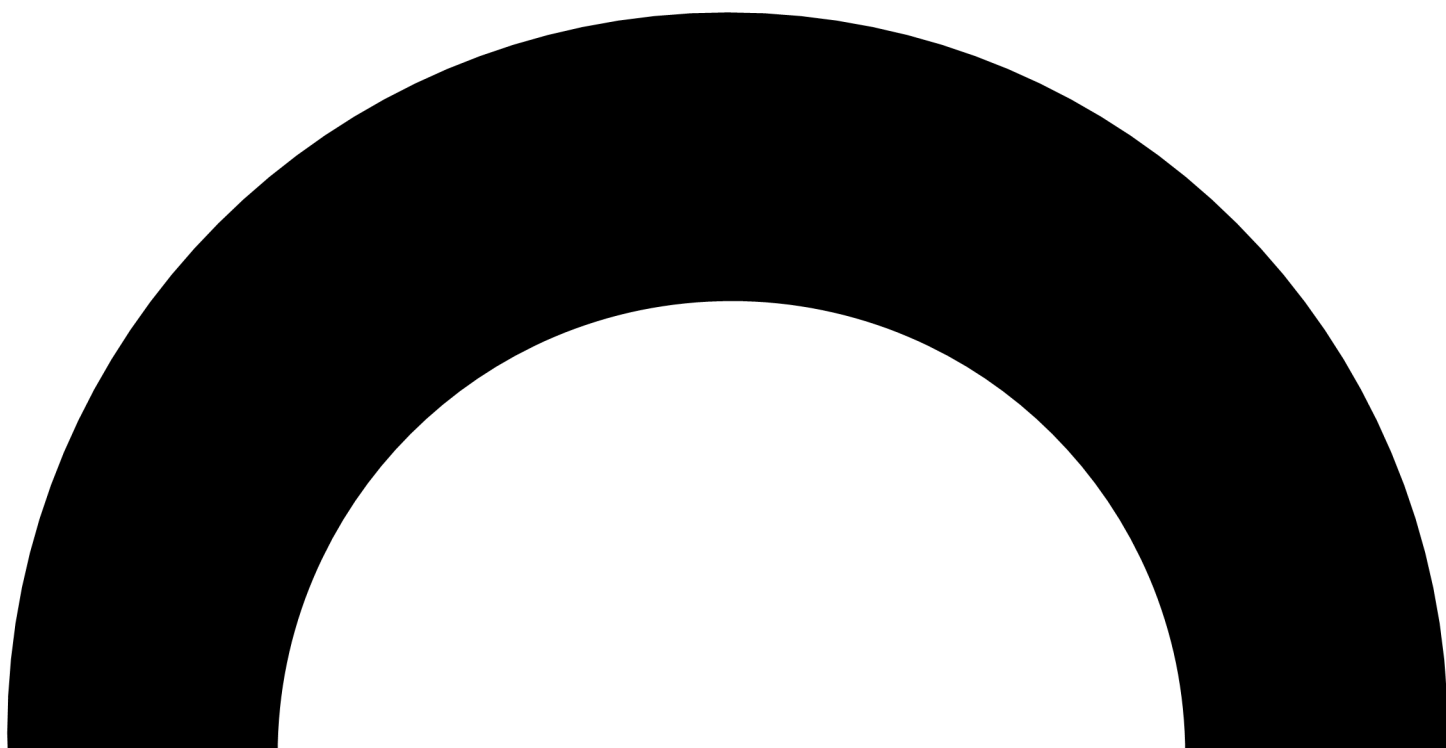# NOVA

NOVA SCHOOL OF
BUSINESS & ECONOMICS

Assurance of Learning
2023/2024 academic year

2025-03-04

About

This document offers a detailed account of the Assurance of Learning (AoL) developments and key changes for the 2023/2024 academic year. It outlines the processes and methodologies implemented during this period, ensuring clarity and transparency in our approach.

Furthermore, it provides a comprehensive analysis of the results from the 2023/2024 academic year assessments, highlighting significant outcomes and findings that are essential for ongoing improvement.

Based on the insights gathered, the document proposes recommendations for enhancements for the three year cycle that will start in 2024/2025. These recommendations are designed to boost the effectiveness of the AoL process and align with our broader academic objectives, aiming to continuously improve the quality of education provided.

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2 Assurance of Learning

Assurance of Learning (AoL) is a continuous improvement process designed to evaluate whether students are effectively acquiring the competencies and skills that their programs intend to impart, and to adjust pedagogical practices accordingly. The goal of AoL is not to replace existing quality control mechanisms[1] but to enhance them.

Initially, quality control in education primarily focused on student satisfaction, course instructors' self-assessments, and adherence to pre-defined procedures. However, there was no explicit, systematic process for assessing the actual knowledge and competency acquisition by students. Such assessments were indirectly made by faculty and the academic director, based on the assumption that if individual course subjects aligned with program goals, and students were passing these courses, they would necessarily be acquiring the expected competencies and skills. This assumption underpinned the previous AoL approach, which relied on instructors' self-assessments and peer reviews. While this approach was supported by the faculty's and academic director's commitment to excellence and student development, it lacked direct and systematic evidence of actual competency acquisition.

The Assurance of Learning process seeks to address this gap by providing a more structured and evidence-based assessment framework that complements the existing quality controls, ensuring a more robust and transparent measure of educational outcomes.

2.1 Goals

The primary objective of the Assurance of Learning (AoL) is to ensure that students meet predefined program-level learning outcomes and to foster continuous quality improvement within academic programs. To achieve this, AoL first establishes specific Learning Outcomes (LOs) for each course. It then employs a predefined sampling strategy to assess the extent to which these outcomes have been achieved.

Assessment occurs at the individual course level, with each course mapped against the overall program LOs to measure its contribution. Additionally, indirect measures of student learning are incorporated through surveys conducted by the Career Placement department, which gathers feedback from corporate recruiters, also alumni who have graduated within the last three years are surveyed. They are asked to rate, on a Likert scale, their agreement with statements describing their proficiency in each LO.

This data triangulation strategy aims to create an interactive process where the acquisition of each LO is measured. The process identifies and addresses gaps, enhancing the educational experience.

Currently, we are in a development phase focused on ensuring that LOs are a central consideration as faculty members develop syllabi. Faculty are expected to integrate LOs into their course materials, planning, and assessment practices. Additionally, any gaps identified in previous assessments are addressed by the Academic Directors during the program curriculum design and individual syllabus development phases.

It is also important to recognize that program LOs are not static; they evolve over time to reflect changing student and market needs. Eventually, these LOs will need to be revisited and revised. In this context, the role of AoL is to ensure coherence across the program and course structures, swiftly incorporating any revisions to the LOs into the program structure and course content, and ensuring that outdated LOs are fully replaced by the new standards.

3 Structure

To maintain coherence with both the school's ethos and the specific objectives of each program, the Assurance of Learning at Nova SBE is structured using a hierarchical approach (Figure 1). This structured approach begins with the core school values and cascades through program objectives down to specific learning outcomes.

The process begins with our foundational school values and their reflection in the specific program objectives. These objectives are then mapped to LOs, ensuring that the core measures of the AoL process not only reflect Nova SBE's values but also effectively meet desired educational and professional standards.

Further, we meticulously select Learning Outcomes for each academic year and identify precise moments within courses to assess these outcomes. This selection process is crucial for gathering relevant data and ensuring that the assessments accurately reflect the educational impact on our students.

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[1] Nova SIMAQ - NOVA's Internal Quality Monitoring and Evaluation System. It is aligned with the University's Strategic Plan, covering all its activities and ensuring the involvement of all stakeholders (internal and external). It aims at the continuous improvement of NOVA's Quality, responding to the legal requirement of implementing its own Quality assurance systems.
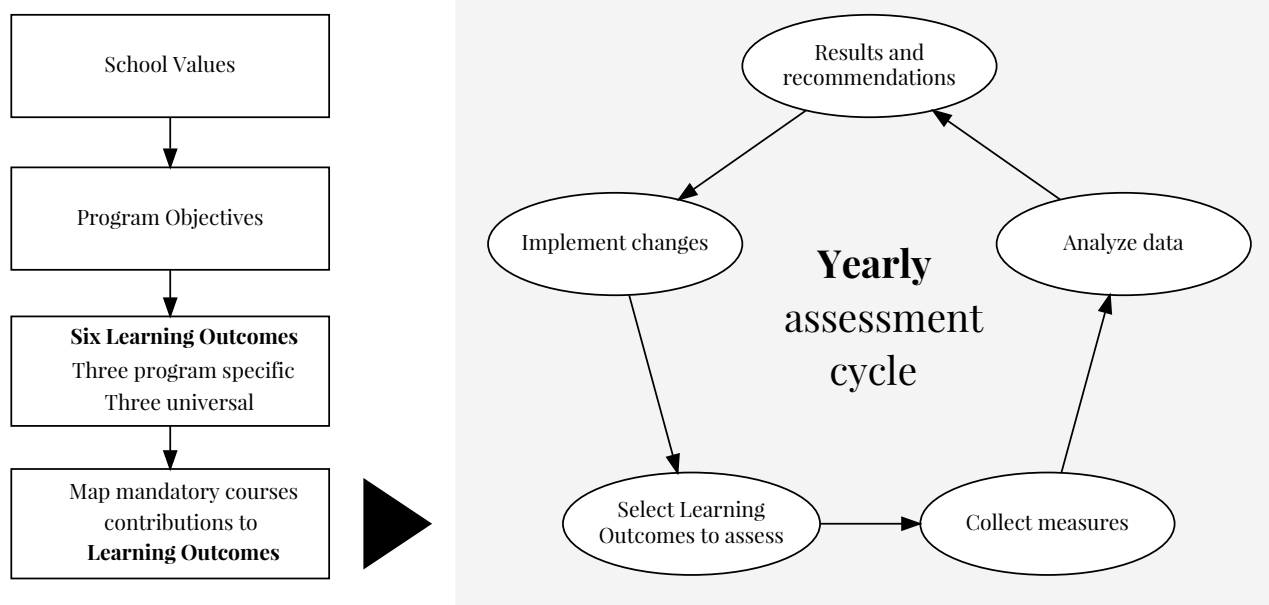
Figure 1: Assurance of Learning design

This leads into our yearly evaluation cycle, where we collect and analyze data to measure how well these outcomes are being achieved. This cycle is not only vital for continuous improvement but also ensures that our programs adapt to evolving educational and industry standards.

3.1 School Values

We initiated our approach by focusing on our core values, which are integral to everything we do. As such, it's essential that the learning outcomes of our programs align with these foundational principles:

- Rigor
- Impact
- Worldliness
- Vanguardism
- Connectivity

This alignment ensures not only coherence with our school's ethos but also facilitates a structured and recognizable framework across all courses. This framework supports an easier understanding and implementation of the Assurance of Learning (AoL) process.

Building on this foundation, we analyzed the current program objectives submitted to A3ES, the national accreditation agency. These objectives were crafted with Nova SBE's values in mind. Our analysis revealed a common value matrix that intersects all programs and should be mirrored in the programs' Learning Outcomes (LOs). We also uncovered a latent structure that underlies the specific objectives of each program.

Leveraging these shared values and the underlying structure common to all programs, we have developed six Learning Outcomes (LOs) for each program, ensuring that our educational goals are both ambitious and aligned with our institutional values.

3.2 Program Learning Outcome structure

For each program, six learning outcomes have been established:

- Three are program-specific, meticulously designed to reflect the unique characteristics and educational objectives of each individual program.
- Three are universal, shared across all school programs, fostering a cohesive educational experience that embodies Nova SBE's ethos.

This dual-layered framework not only captures the unique identity and specific learning outcomes of each program but also integrates Nova SBE's core values and DNA into every facet of our curriculum. This approach ensures that our overarching values are consistently represented across all program offerings, aligning individual program objectives with the broader institutional goals.

3.2.1 Specific Learning Outcomes

The three specific learning outcomes differ from course to course at Nova SBE, yet they share a consistent thread that aligns with the school's core values. This thread not only unites all courses but also shapes how students approach their educational and personal development within the institution.

Accordingly, the specific learning outcomes for each course are strategically defined as follows:

- **I - Context Understanding**: Students develop a nuanced understanding of the broader context surrounding the subject area. This encompasses comprehending the environmental, economic, social, and technological factors that impact the field, equipping students with the ability to assess and interpret the dynamics that influence their studies.
- **II - Tool Application**: Students achieve proficiency in applying specialized tools and techniques learned during the course. This outcome focuses on the practical application of these tools, ensuring that students can effectively employ them in real-world situations, thereby bridging the gap between theoretical knowledge and practical implementation.
- **III - Theory Application**: Students are skilled at translating theoretical concepts into practical solutions. This involves applying academic theories to real-life challenges, demonstrating a deep understanding of how theoretical frameworks can be utilized to solve concrete problems.

These outcomes are crafted to ensure that while each course maintains its unique focus and depth, the overall educational experience at Nova SBE remains consistent, integrated, and aligned with the school's values. This approach not only reinforces the relevance of each course within the broader educational aims of Nova SBE but also enhances the students' ability to apply their learning in varied and complex real-world scenarios.

3.2.2 Universal Learning Outcomes

Nova SBE is committed to cultivating professionals who embody a proactive 'go-get-it' attitude. We strive to develop individuals who engage in assertive and effective teamwork, possess the skills to both lead and collaborate, and recognize that their learning journey extends far beyond the classroom. With the mindset and tools to ensure continuous personal and professional growth, our students are prepared to make lasting impacts.

Another key aspect that defines Nova SBE's ethos and internal culture is its commitment to having a positive impact. In line with this, during the academic year of 2022/2023, we introduced an additional Learning Outcome, LO VI, focused specifically on the dimensions of positive impact and sustainability. This new LO underscores Nova SBE's dedication to instilling these crucial values in its students, ensuring that they not only succeed in their careers but also contribute positively to society and the environment.

Accordingly, the shared learning outcomes have been defined to reflect these ambitions:

- **IV - Interpersonal and Teamwork Skills**: Students will demonstrate effective interpersonal and communication skills, fostering productive teamwork and the capacity to pursue collaborative efforts successfully.

- **V - Intellectually Curious and Autonomous**: Students will develop analytical, critical thinking, and problem-solving skills that facilitate lifelong learning and autonomous professional development.

- **VI - Sustainable Values for Positive Impact**: Students will gain a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to drive positive and transformative influences within projects and organizations.

These outcomes ensure that our graduates not only meet the current standards of professional excellence but are also equipped to adapt and thrive in an ever-changing global landscape.

3.3 Courses and Program Learning Outcomes

At the start of the Assurance of Learning process in 2021/2022, Learning Outcomes were carefully mapped to each program's mandatory courses and validated by Academic Directors to ensure every course supported the overall program goals. These mappings were rigorously confirmed for accuracy and relevance. Following any changes to mandatory courses—most notably the BSc restructuring in 2023/2024—the new courses were re-mapped and the updated maps were validated by Academic Directors.

Starting in the 2023/2024 academic year, only two Learning Outcomes will be directly assessed each year—one specific to the program and one universal.

3.4 Defining the Learning outcomes

For each learning goal, three proficiency levels were defined based on Bloom's Taxonomy, structured as follows:

- **Developing**: The student is aware of and recognizes the importance of the competencies and skills defined by the Learning Outcome (LO).
- **Proficient**: The student can apply the competencies and skills defined by the LO in a limited capacity.
- **Expert**: The student has developed a deep knowledge and understanding of the competencies and skills defined by the LO and can apply them autonomously in various contexts beyond those explicitly taught in the program.

3.5 Assessing the Learning Outcomes

For the 2022/2023 cycle, we began using three distinct data sources to assess learning outcomes (Figure 2). To ensure consistency and clarity, the results from all sources are consolidated into a qualitative scale (A, B, C, F), providing an intuitive overview of performance. This section outlines the analysis process for each data source.
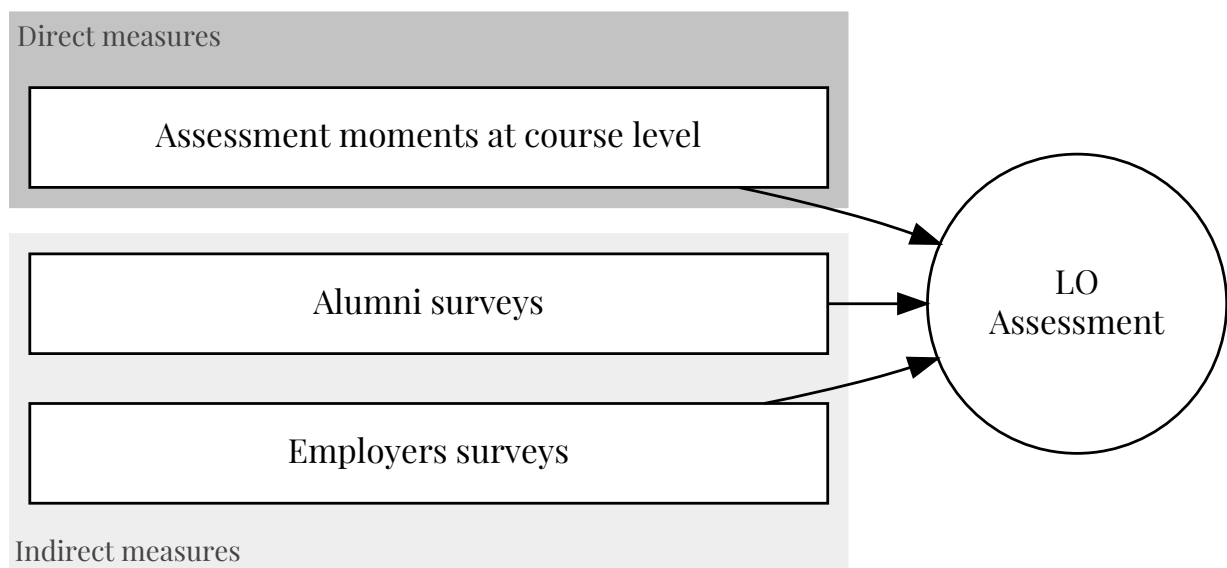
Figure 2: Assessment data sources

Direct measures assess student learning by evaluating real work—like tests, presentations, or projects—that align with course objectives (Figure 2). They provide clear evidence of student skills and help validate our curriculum while highlighting areas that need improvement.

Direct measures provide an objective snapshot of student learning through tests, projects, and presentations. However, they capture only a single point in time, and differences in course difficulty mean that systemic issues only emerge when data is collected over several years. This long-term approach helps us understand learning trends and curriculum effectiveness.

Indirect measures, on the other hand, reveal how students, alumni, and employers perceive student competencies. For the 2023/2024 cycle, we have two years of indirect measure data. Tools like alumni and employer surveys show how well students develop the desired skills. Employer feedback is especially valuable because it offers an external view of how education meets real-world demands.

While indirect measures don't assess student learning directly, they provide a broader picture of a program's impact. They complement direct measures by ensuring that the curriculum is both academically rigorous and aligned with industry needs.

Combining both direct and indirect measures gives us a well-rounded view of educational effectiveness. This approach reduces bias, improves reliability, and helps us identify strengths and areas for improvement in our programs, ensuring our educational strategies meet both academic and professional standards.

3.5.1 Direct measures

After mapping how each course contributes to the program's defined Learning Outcomes (LOs), and with the assistance of the Academic Director, courses to be assessed were selected. For each chosen course, the professor responsible was directly contacted to help identify the assessment moment that best captures the relevant LO. Options for these assessment moments include:

- Exam
- Mid-term
- Term-paper
- Group project
- Specific exam question
- Peer assessment

By integrating the measurement of Learning Outcomes into existing assessment formats, we aim to minimize disruption to the schedules of both professors and graders. Additionally, as the awareness of course learning outcomes becomes more ingrained in all parties involved, we anticipate a natural evolution where course assessments more effectively reflect and measure the intended outcomes.

Defining targets   Assessment moments will produce grades ranging from 0 to 20. For grading systems that do not adhere to this format, grades will be proportionally converted to this scale. To align these grades with the Assurance of Learning (AoL) goals, we have categorized them into three brackets:

- **Below Target**: Grades below 12, indicating that the student has either failed or barely passed the course.
- **On Target**: Grades between 12 and 16, signifying satisfactory to good performance.
- **Above Target**: Grades above 16, denoting excellent performance.

To mitigate the potential for grade inflation and avoid it as an incentive, we have chosen to use the Total Percentage of Grades On Target and Above Target (TTAT) as the primary indicator. This metric, representing the combined percentage of grades that are On Target and Above Target, reflects the proportion of students achieving a passing grade in the assessment.

Evaluating the results   To determine the extent to which the Learning Outcomes (LOs) are being achieved, the Total Percentage of Grades On Target and Above Target (TTAT) will be assessed according to the following scale:

- **A**: More than 90% TTAT - LO objectives fully achieved.
- **B**: Between 80% and 90% TTAT - LO objectives achieved.
- **C**: Between 60% and 80% TTAT - LO objectives insufficiently achieved.
- **F**: Below 60% TTAT - LO objectives not achieved.

This scale ensures a clear and measurable indicator of student performance relative to the set learning objectives.

ℹ️ Learning Outcomes that receive an 'F' rating will be reassessed in the following academic year during the same course and assessment moment, even if no assessment was originally planned for that LO. Then, in academic year n+2, if the LO still receives an '**F**' or '**C**' rating, it will be reassessed again in a different course. Similarly, LOs rated as '**C**' will be reassessed in a different course in the following academic year, with an additional assessment in year n+2 only if they again receive a '**C**' or '**F**' rating.

3.5.2 Indirect measures

Indirect measures at Nova SBE utilize statement-based surveys where participants rate their agreement with statements that describe mastering the competencies of each Learning Outcome (LO). Administered biannually, these surveys are designed to capture a comprehensive overview of the alumni and employers' perspectives. Alumni surveys are typically integrated with end-of-program evaluations, while employer surveys are conducted during annual career fairs to ensure high participation rates and relevance. This method allows for the continual assessment of all Learning Outcomes each year, providing a consistent and reliable flow of feedback to inform program enhancements.

Alumni surveys: The alumni surveys are comprised of straightforward, statement-based questionnaires in which recently graduated alumni rate, on a Likert scale from 1 to 6, their agreement with statements describing their achievement of the expert-level for each Learning Outcome (LO).

This self-assessment serves as an indirect method for evaluating each LO, offering insights into the effectiveness with which the Learning Outcomes are being realized. The surveys are administered twice annually and are combined with other end-of-program questions that are designed to evaluate additional quality aspects of the programs.

Given that this is an indirect measure requiring minimal time commitment from survey participants, it contrasts with the more targeted, direct LO assessments where only a sample of LOs is evaluated each year (four cycle assessments, plus additional reassessments as needed). Consequently, this method enables the comprehensive assessment of all LOs in every annual cycle.

Employers surveys: Like the alumni surveys, the employers' surveys consist of statement-based questionnaires. In these surveys, employers rate, on a Likert scale from 1 to 6, their agreement with statements that describe how well they believe the alumni have achieved the expert-level for each Learning Outcome (LO).

This method serves as an indirect way to evaluate each LO, providing insights into the practical effectiveness of the Learning Outcomes as perceived by employers. These surveys are conducted twice a year and are integrated with other queries designed to assess additional quality dimensions of the programs from an employer's perspective.

Like the alumni surveys, this is an indirect method requiring minimal time commitment from the participants, allowing for a comprehensive assessment of all LOs in each annual cycle. To maximize efficiency and ensure a high volume of responses, the surveys are conducted in person during the two career fairs held annually at Nova SBE's campus. Recruiters were initially asked to specify from which degree programs they recruit graduates. Subsequently, they were directed to complete surveys pertaining specifically to those programs.

Defining targets: The indirect measures utilized in the surveys involve a Likert scale from 1 to 6, where respondents indicate their agreement with statements that assess the mastery of each Learning Outcome (LO). To align these responses with the Assurance of Learning (AoL) goals, we categorize them into three distinct performance brackets:

- **Below Target**: Responses below 4, indicating that the perceived mastery of competencies is inadequate or just below satisfactory.
- **On Target**: Responses between 4 and 5.5, signifying that the mastery of competencies is viewed as satisfactory to good.
- **Above Target**: Responses of 5.5 or higher, denoting excellent perceived mastery of competencies.

To mitigate the potential for bias and ensure a balanced evaluation, we utilize the Total Percentage of Responses On Target and Above Target (TTAT) as the primary indicator. This metric reflects the combined percentage of responses falling within the On Target and Above Target categories and provides a clear measure of how well students believe they have achieved and can apply the program's Learning Outcomes in real-world contexts.

Evaluating the results: Similarly to the direct measures, the evaluation of indirect measures also uses the Total Percentage of Responses On Target and Above Target (TTAT) to determine the extent to which the Learning Outcomes (LOs) are being achieved. For a matter of convenience and to maintain coherence across different types of assessments, the responses are assessed using the same thresholds as those applied in direct measures:

- **A**: More than 90% TTAT - LO objectives fully achieved.
- **B**: Between 80% and 90% TTAT - LO objectives substantially achieved.
- **C**: Between 60% and 80% TTAT - LO objectives insufficiently achieved.
- **F**: Below 60% TTAT - LO objectives not achieved.

This approach ensures that both direct and indirect measures are aligned, providing a consistent and comprehensive assessment of student performance relative to the set learning objectives.

3.6 Yearly assessment cycle

The Yearly Assessment Cycle is a structured, continuous process designed to evaluate and enhance the effectiveness of our educational programs. This cycle ensures that we consistently monitor, analyze, and improve the learning outcomes and overall quality of education at Nova SBE. The cycle follows the PDCA (Plan-Do-Check-Act) methodology, a proven framework for continuous improvement.

The Yearly Assessment Cycle is an ongoing process, fostering a culture of continuous improvement. Each iteration of the cycle builds on the previous one, incorporating new insights and evolving to meet the changing needs of students and the industry. By maintaining this dynamic approach, we ensure that Nova SBE remains at the forefront of educational excellence.

The key stages of the cycle are:

3.6.1 Select Learning Outcomes to Assess

Check: The first step in the cycle involves selecting the specific Learning Outcomes (LOs) that will be assessed during the year. This selection is guided by the need to cover different LOs systematically over time, ensuring a comprehensive evaluation of all program objectives. By rotating the focus of assessment, we ensure that each LO is thoroughly examined and validated periodically. Additionally, any LOs and assessment moments flagged for reassessment in previous cycles will be included to address any identified gaps and verify improvements.

3.6.2 Collect Measures

Check: In this stage, we gather data through various direct and indirect measures. Direct measures may include exams, projects, and presentations that provide tangible evidence of student competencies. Indirect measures involve feedback from alumni and employers through surveys, which offer insights into the perceived effectiveness of the educational programs. This combination of data sources helps to create a well-rounded understanding of how well students are meeting the LOs.

3.6.3 Analyze Data

Act: Once the data is collected, it is analyzed to identify trends, strengths, and areas needing improvement. This analysis involves comparing the collected data against predefined benchmarks and standards. Based on the defined criteria, data points are classified into "Below Target," "On Target," or "Above Target" categories. By calculating the total percentage of On Target and Above Target (TATT), a qualitative evaluation of A, B, C, or F is assigned to the assessed LO. This process is performed for both direct measures and indirect measures, ensuring a comprehensive understanding of the extent to which the LOs are being achieved and identifying any gaps in the curriculum or instructional methods.

3.6.4 Results and Recommendations

Plan: Based on the data analysis, we identify potential structural flaws in both the curricula and the courses themselves. By combining the evaluation and reevaluation of direct measures with indirect measures, we aim to understand if an issue is systematic or focused on a specific course or just a particular assessment moment. Based on this understanding, we select LOs and assessment moments for reassessment in the coming yearly cycles and generate reports that pinpoint where the Academic Directors need to focus their attention for continuous improvement of the programs.

These findings are shared with the academic directors, relevant faculty and program administrators to guide their decision-making processes.

3.6.5 Implement changes

Do: The final stage of the cycle involves implementing the recommended changes. Based on the identified issues, the academic directors of each program will meet with the relevant faculty to pinpoint root causes and develop improvement plans. If an issue is found to be systemic, the academic directors will review and potentially revise the curricula to address the broader concerns. This critical step ensures that the insights gained from the assessment process are translated into practical, actionable improvements. By closing the loop, we continually refine and elevate our educational offerings, ensuring they align more closely with Nova SBE's values and objectives. This iterative process fosters a culture of continuous improvement, enabling us to adapt and respond to evolving educational needs and industry standards.

4 BSc in Economics

4.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **BSc in Economics**.

The Table 1, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 1: Nova SBE's values and Program objectives for the **BSc in Economics**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. A solid knowledge and ability to understand the principles of Economics and their application.	**X**	**X**			
2. Personal skills such as communication skills, ability to work individually and in teams, use of computing techniques including research, processing and data presentation.			**X**		**X**
3. Analytical skills and critical thinking capacities allowing them to build and communicate their own argument.	**X**	**X**			

	Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
	4. A general education in Management and other related disciplines in the areas of Law, Quantitative Methods and Social Sciences, so that they can analyze and develop solutions and emit judgments, taking into account a variety of scientific, social and ethical aspects.			X		X
	5. An education which enables them to communicate information, ideas, problems and solutions to diversified audiences.				X	X
	6. Personal skills that allow for a life-long learning experience in a fundamentally autonomous manner.		X		X	

4.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **BSc in Economics**, as detailed in the Table 2.

Table 2: Program Learning Outcomes for the **BSc in Economics**

	Outcome
I	Has broad knowledge of national and international economic context, including social, legal, historical and political issues
II	Is able to use quantitative and technical skills for analyzing economic issues
III	Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]Universal learning Outcomes shared among all Nova SBE programs.

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 3, below, outlines the levels of proficiency for the Learning Outcomes in the **BSc in Economics** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 3: Levels of Proficiency for Learning Outcomes in the **BSc in Economics**

	Developing	Proficient	Expert
I	Recognizes that both national and international economic contexts are multidimensional	Describes social, legal, historical, political and ethical context to national and international issues	Demonstrates a broad knowledge of all the knowledge areas impacting both national and international economic context, and understands how they impact each other.

	Developing	Proficient	Expert
II	Recognizes that economic issues must be addressed in an analytical way	Summarizes economic issues with the help of quantitative and technical skills	Applies analytical skills to economic issues, in order to gain insights
III	Recognizes that key theories and practices of core areas of economic science can produce important insights in to actual situations	Identifies insights in to actual situations with the assistance of key theories and practices of core areas of economic science	Applies key theories and practices in core areas of economic science to actual situations, in order to gain decision making information
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 69 of the Appendix 1.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 70, located in Appendix 1.A.

4.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **BSc in Economics** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 4 below.

Table 4: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **BSc in Economics**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S1	Principles of Macroeconomics	1118	**I**	Developing	Midterms	
S2	Calculus II	1310	**II**	Proficient	Exam group I	**X**
S1	Statistics for Economics and Management	1313	**II**	Proficient	Project	**X**
S1	Economic history	1124	**III**	Proficient	Midterm	**X**
T2	Communication and Leadership	1462	**IV**	Expert	Group Assignment	
S2	Data Analysis and Probability	1312	**V**	Proficient	Midterm 2	**X**
T2	Ethics	1463	**VI**	Expert	Final exam	**X**

4.4 Results

The results for the **BSc in Economics** for the academic year of 2023/2024, were the following.

4.4.1 Direct Measures

Learning Outcome I: Has broad knowledge of national and international economic context, including social, legal, historical and political issues

Course assessed: Principles of Macroeconomics

Assessment moment: Midterms
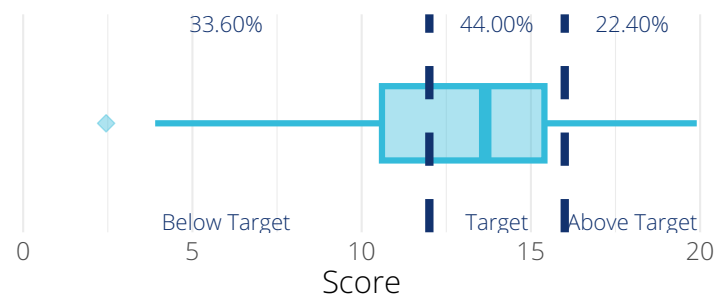
KPIs	
# of assessments[1]	125
Mean score[2]	12.79
Below Target	33.60%
On Target	44.00%
Above Target	22.40%
Total On Target and Above Target	**66.40%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Communication and Leadership

Assessment moment: Group Assignment
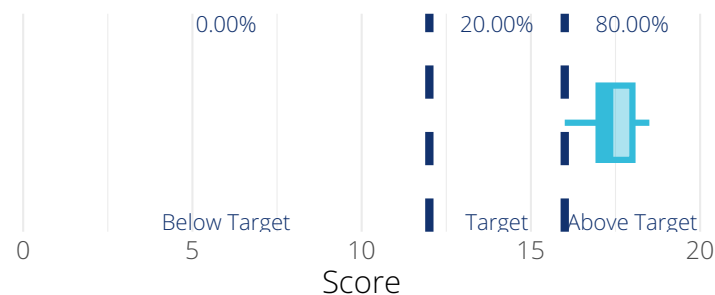
KPIs	
# of assessments[1]	20
Mean score[2]	17.30
Below Target	0.00%
On Target	20.00%
Above Target	80.00%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome II - Reassessment 1: Is able to use quantitative and technical skills for analyzing economic issues

Course assessed: Calculus II

Assessment moment: Exam group I
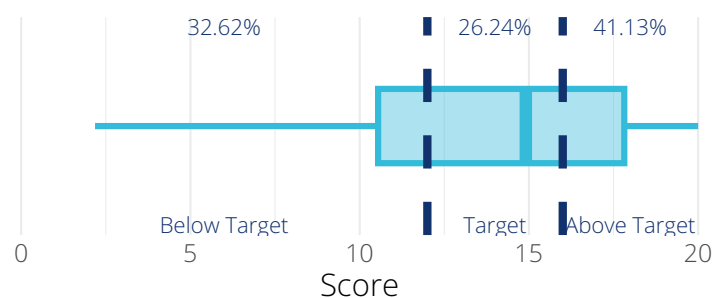
KPIs	
# of assessments[1]	141
Mean score[2]	13.83
Below Target	32.62%
On Target	26.24%
Above Target	41.13%
Total On Target and Above Target	**67.38%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome II - Reassessment 2: Is able to use quantitative and technical skills for analyzing economic issues

Course assessed: Statistics for Economics and Management

Assessment moment: Project
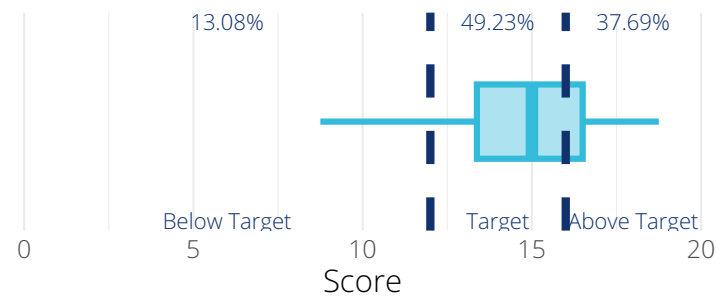
KPIs	
# of assessments[1]	130
Mean score[2]	14.92
Below Target	13.08%
On Target	49.23%
Above Target	37.69%
Total On Target and Above Target	**86.92%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome III - Reassessment: Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations

Course assessed: Economic history

Assessment moment: Midterm
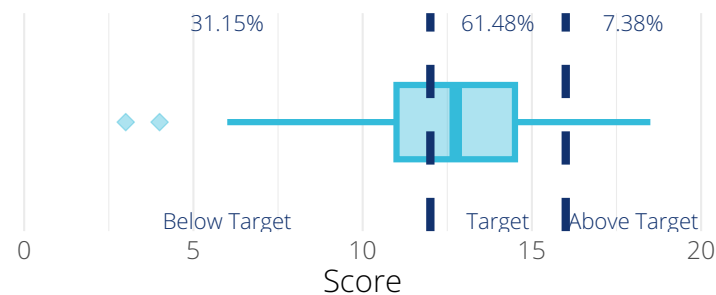
KPIs	
# of assessments[1]	122
Mean score[2]	12.59
Below Target	31.15%
On Target	61.48%
Above Target	7.38%
Total On Target and Above Target	**68.85%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome V - Reassessment: Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner

Course assessed: Data Analysis and Probability

Assessment moment: Midterm 2
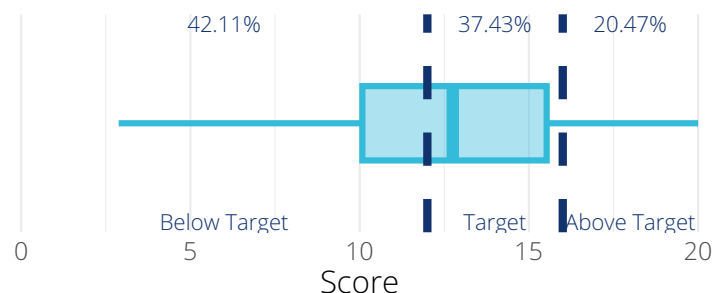
KPIs	
# of assessments[1]	171
Mean score[2]	12.69
Below Target	42.11%
On Target	37.43%
Above Target	20.47%
Total On Target and Above Target	**57.89%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome VI - Reassessment: Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

Course assessed: Ethics

Assessment moment: Final exam
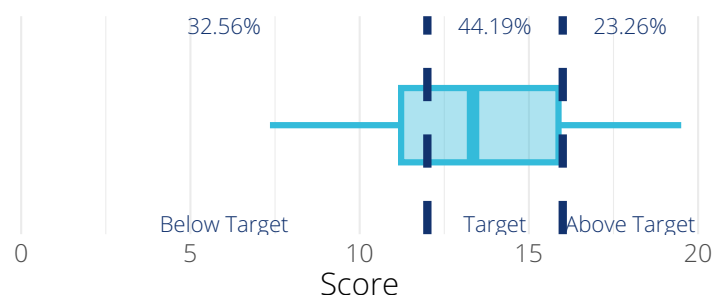
KPIs	
# of assessments[1]	86
Mean score[2]	13.67
Below Target	32.56%
On Target	44.19%
Above Target	23.26%
Total On Target and Above Target	**67.44%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

4.4.2 Indirect Measures

Alumni surveys: Below, Table 5 provides a summary of the alumni survey results for the **BSc in Economics** during the 2023/2024 academic year. The scores, based on responses from **69** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 5: Results of the alumni surveys for the **BSc in Economics**

|	Outcome	Mean[1]	TTAT[2]	Score
I	Has broad knowledge of national and international economic context, including social, legal, historical and political issues	4.62	91.30	A
II	Is able to use quantitative and technical skills for analyzing economic issues	4.70	94.20	A
III	Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations	4.67	91.30	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.10	92.75	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.07	95.65	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.46	81.08	B

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **BSc in Economics** in the 2023/2024 academic year are summarized in Table 6. Based on feedback from **10** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 6: Results of the employer surveys for the **BSc in Economics**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has broad knowledge of national and international economic context, including social, legal, historical and political issues	4.80	90	B
II	Is able to use quantitative and technical skills for analyzing economic issues	5.09	100	A
III	Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations	5.00	100	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.55	100	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.45	100	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.00	100	A

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

4.4.3 Integrated assurance overview

The table below, Table 7, presents the integrated results for the program **BSc in Economics**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 7: Integrated direct and indirect measures results for the **BSc in Economics**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		C		B	A
II	A		B	A	A
III	C		C	A	A
IV		A		A	A
V	C		F	A	A
VI	F		C	A	B

[1] Academic year 2022/2023

[2] When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **BSc in Economics**.

4.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 4.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome I** - *Applies a broad understanding of national and international economic contexts, including social, legal, historical, and political factors, to develop comprehensive economic analyses and strategies* - **Course 1118 - Principles of Macroeconomics**: Improvement plan to be developed.

- **Learning Outcome III** - *Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations* - **Course 1124 - Economic history**: Course instructor no longer at Nova SBE. New course instructor should be made aware of potential issues.

- **Learning Outcome V** - *Utilizes analytical, critical thinking, and problem-solving skills to navigate challenges and enable lifelong learning within teams and organizations.* – **Course: 1312 - Data Analysis and Probability**: Improvement plan to be developed.

- **Learning Outcome VI** - *Leverages a deep understanding of sustainability in business and economics to drive ethical transformations and positive outcomes across organizational and project contexts.* – **Course: 1463 - Ethics**: Improvement plan to be developed.

5 BSc in Management

5.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **BSc in Management**.

The Table 8, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 8: Nova SBE's values and Program objectives for the **BSc in Management**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1.Students will develop analytical, critical thinking and problem solving skills.	**X**	**X**			
2. Students will develop effective interpersonal and communication skills, including the ability to pursue productive teamwork.			**X**		**X**
3. Students will understand the key theories and practices in core management areas and apply them in real business situations.	**X**			**X**	
4. Students will be able to use quantitative and technical skills in business situations.	**X**				**X**
5. Students will acquire a broad knowledge of the national and global business environment, from a variety of perspectives (managerial, economic, legal, cultural, and ethical).			**X**	**X**	

5.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **BSc in Management**, as detailed in the Table 9.

Table 9: Program Learning Outcomes for the **BSc in Management**

	Outcome
I	Has broad knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing
II	Is able to apply analytical skills to real world business problems
III	Has a strategic understanding of the business environment
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 10, below, outlines the levels of proficiency for the Learning Outcomes in the **BSc in Management** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 10: Levels of Proficiency for Learning Outcomes in the **BSc in Management**

	Developing	Proficient	Expert
I	Recognizes the roles of the different knowledge areas of management	Summarizes the different management knowledge areas	Applies the tools from the different knowledge areas of management
II	Recognizes that real world business problems must be addressed in an analytical way	Identifies and summarizes real world business problems	Applies his/hers analytical skills, when addressing real world business problems
III	Recognizes the different strategic forces influencing the business environment	Summarizes the business environment, and identifies the different forces affecting it	Constructs future scenarios and adjust his business strategy accordingly
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 71 of the Appendix 2.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 72, located in Appendix 2.B.

5.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **BSc in Management** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 11 below.

Table 11: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **BSc in Management**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S1	Management Accounting	1218	I	Proficient	Midterm	
S2	Calculus II	1310	II	Proficient	Exam group I	X
S1	Statistics for Economics and Management	1313	II	Proficient	Project	X
T2	Communication and Leadership	1462	IV	Expert	Group Assignment	
S2	Data Analysis and Probability	1312	V	Proficient	Midterm 2	X

5.4 Results

The results for the **BSc in Management** for the academic year of 2023/2024, were the following.

5.4.1 Direct Measures

Learning Outcome I: Has broad knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing

Course assessed: Management Accounting

Assessment moment: Midterm
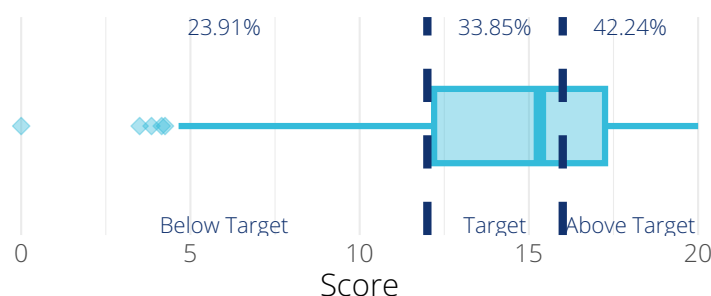
KPIs	
# of assessments[1]	322
Mean score[2]	14.40
Below Target	23.91%
On Target	33.85%
Above Target	42.24%
Total On Target and Above Target	**76.09%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Communication and Leadership

Assessment moment: Group Assignment
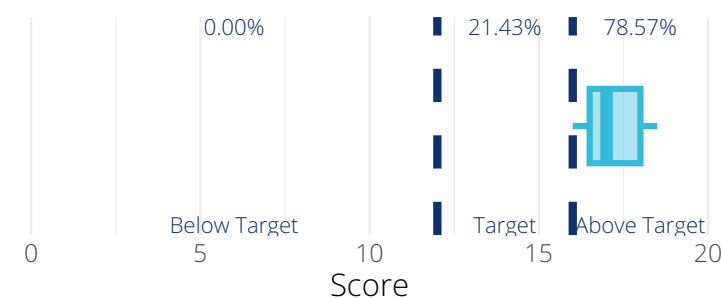
KPIs	
# of assessments[1]	28
Mean score[2]	17.14
Below Target	0.00%
On Target	21.43%
Above Target	78.57%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome II - Reassessment 1: Is able to apply analytical skills to real world business problems

Course assessed: Calculus II

Assessment moment: Exam group I
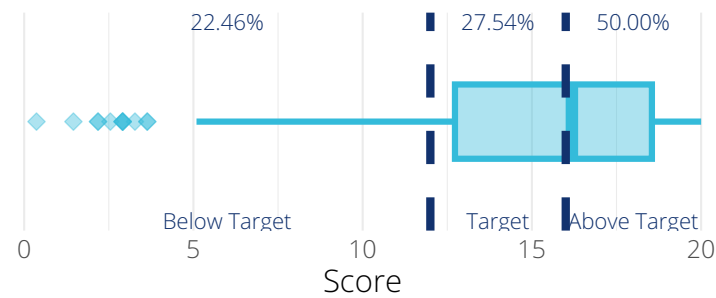
KPIs	
# of assessments[1]	236
Mean score[2]	14.87
Below Target	22.46%
On Target	27.54%
Above Target	50.00%
Total On Target and Above Target	**77.54%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome II - Reassessment 2:   Is able to apply analytical skills to real world business problems

Course assessed: Statistics for Economics and Management

Assessment moment: Project
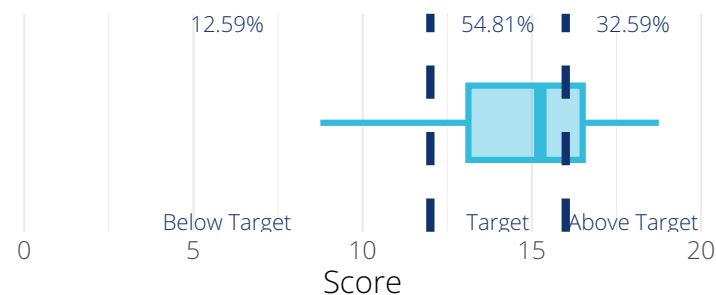
KPIs	
# of assessments[1]	135
Mean score[2]	14.71
Below Target	12.59%
On Target	54.81%
Above Target	32.59%
Total On Target and Above Target	**87.41%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome V - Reassessment: Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner

Course assessed: Data Analysis and Probability

Assessment moment: Midterm 2
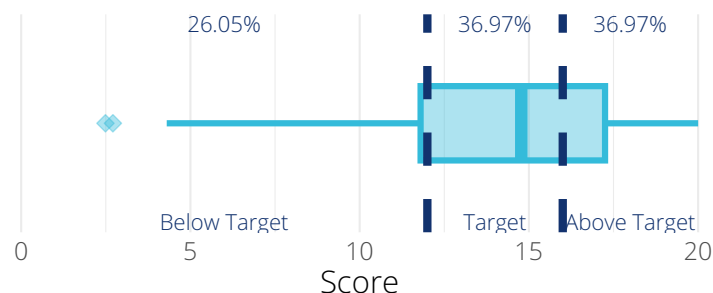
KPIs	
# of assessments[1]	238
Mean score[2]	14.23
Below Target	26.05%
On Target	36.97%
Above Target	36.97%
Total On Target and Above Target	**73.95%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

5.4.2 Indirect Measures

Alumni surveys: Below, Table 12 provides a summary of the alumni survey results for the **BSc in Management** during the 2023/2024 academic year. The scores, based on responses from **133** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 12: Results of the alumni surveys for the **BSc in Management**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has broad knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	4.91	94.74	A
II	Is able to apply analytical skills to real world business problems	4.87	92.48	A
III	Has a strategic understanding of the business environment	4.61	88.72	B
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.17	96.24	A

	Outcome	Mean[1]	TTAT[2]	Score
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.05	96.24	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.77	89.04	B

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

Employers surveys: The results of the employer survey for the **BSc in Management** in the 2023/2024 academic year are summarized in Table 13. Based on feedback from **12** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 13: Results of the employer surveys for the **BSc in Management**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has broad knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	5.00	100.00	A
II	Is able to apply analytical skills to real world business problems	5.08	91.67	A
III	Has a strategic understanding of the business environment	4.73	90.91	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.25	100.00	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	4.83	83.33	B
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.82	90.91	A

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

5.4.3 Integrated assurance overview

The table below, Table 14, presents the integrated results for the program **BSc in Management**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 14: Integrated direct and indirect measures results for the **BSc in Management**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		C		A	A
II	B		B	A	A
III	A			A	B
IV		A		A	A
V	C		C	B	A
VI	B			A	B

[1] Academic year 2022/2023

[2] When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **BSc in Management**.

5.5 Outcomes and

Drawing on the integrated results presented in Section 5.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome I** – *Applies comprehensive knowledge in management areas such as finance, strategy, organizational behavior, and marketing to enhance organizational effectiveness and efficiency* - **Course 1218 - Management Accounting**: Improvement plan to be developed.

- **Learning Outcome V** – *Utilizes analytical, critical thinking, and problem-solving skills to navigate challenges and enable lifelong learning within teams and organizations* - **Course: 1312 - Data Analysis and Probability**: Improvement plan to be developed.

6 MSc in Economics

6.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc in Economics**.

The Table 15, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 15: Nova SBE's values and Program objectives for the **MSc in Economics**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. Possess knowledge and capacity for understanding at a level that builds upon and enriches that acquired at Undergraduate level, show evidence that they have applied their developed knowledge in an original format, frequently in the context of a research project.	**X**	**X**			

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
2. Ability to apply their knowledge and capacity to comprehend and resolve problems in new and unfamiliar situations, in broader contexts, beyond those directly related to their area of study.			**X**		**X**
3. Capacity to integrate knowledge, deal with complex questions, develop solutions or emit judgments in situations where there is limited or incomplete information. An awareness of the ethical and social implications and responsibilities that result from these solutions and judgments or that condition them.				**X**	**X**
4. Communicate conclusions, and the knowledge and reasoning underlying them in a clear and unambiguous fashion.	**X**	**X**			
5. Competencies that allow for a life-long learning experience in a fundamentally self-motivated and autonomous manner.		**X**		**X**	

6.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc in Economics**, as detailed in the Table 16.

Table 16: Program Learning Outcomes for the **MSc in Economics**

	Outcome
I	Has knowledge of national and international economic context
II	Is able to use quantitative and technical skills for analyzing economic issues
III	Understands the key theories and practices in core areas of economic science and is able to them to actual situations
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 17, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc in Economics** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 17: Levels of Proficiency for Learning Outcomes in the **MSc in Economics**

	Developing	Proficient	Expert
I	Identifies that both national and international economic contexts are multidimensional	Analzes the national and international economic context	Interprets the national and international economic context
II	Describes economic issues	Applies analytical skills to economic issues, in order to gain insights	Interprets economic issues, and is able to attain insights and predict their future developments
III	Recognizes that important insights in to actual situations can be gained my applying key theories and practices in core areas of economic science	Applies key theories and practices in core areas of economic science to actual situations and gain insights	Generates decision making information by applying key theories and practices in core areas of economic science to actual situations
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 73 of the Appendix 3.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 74, located in Appendix 3.B.

6.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc in Economics** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 18 below.

Table 18: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc in Economics**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S2	Macroeconometrics	2168	**I**	Expert	Final exam	
S1	Microeconomics Analysis	2188	**IV**	Expert	Assignments	

6.4 Results

The results for the **MSc in Economics** for the academic year of 2023/2024, were the following.

6.4.1 Direct Measures

Learning Outcome I: Has knowledge of national and international economic context

Course assessed: Macroeconometrics

Assessment moment: Final exam
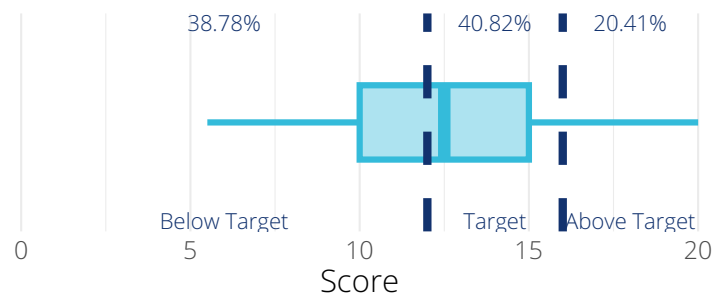
KPIs	
# of assessments[1]	49
Mean score[2]	12.79
Below Target	38.78%
On Target	40.82%
Above Target	20.41%
Total On Target and Above Target	**61.22%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Microeconomics Analysis

Assessment moment: Assignments
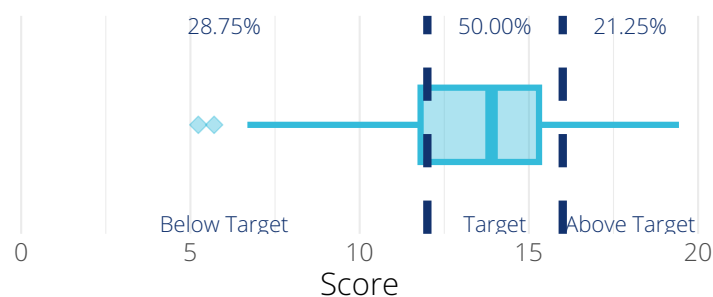
KPIs	
# of assessments[1]	80
Mean score[2]	13.46
Below Target	28.75%
On Target	50.00%
Above Target	21.25%
Total On Target and Above Target	**71.25%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

6.4.2 Indirect Measures

Alumni surveys: Below, Table 19 provides a summary of the alumni survey results for the **MSc in Economics** during the 2023/2024 academic year. The scores, based on responses from **34** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 19: Results of the alumni surveys for the **MSc in Economics**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has knowledge of national and international economic context	5.12	97.06	A
II	Is able to use quantitative and technical skills for analyzing economic issues	5.03	94.12	A
III	Understands the key theories and practices in core areas of economic science and is able to them to actual situations	4.18	79.41	C
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.29	100.00	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.41	97.06	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.00	100.00	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc in Economics** in the 2023/2024 academic year are summarized in Table 20. Based on feedback from **14** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 20: Results of the employer surveys for the **MSc in Economics**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has knowledge of national and international economic context	4.93	100.00	A
II	Is able to use quantitative and technical skills for analyzing economic issues	5.21	92.86	A
III	Understands the key theories and practices in core areas of economic science and is able to them to actual situations	5.23	100.00	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.14	92.86	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	4.93	85.71	B
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.00	100.00	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

6.4.3 Integrated assurance overview

The table below, Table 21, presents the integrated results for the program **MSc in Economics**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 21: Integrated direct and indirect measures results for the **MSc in Economics**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		C		A	A
II	B			A	A
III	A			A	C
IV		C		A	A
V	A			B	A
VI	A			A	A

[1]Academic year 2022/2023

[2]When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc in Economics**.

6.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 6.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome I** - *Analyses and evaluates national and international economic contexts* – **Course 2168 - Macroeconometrics**: Improvement plan to be developed.

- **Learning Outcome IV** – *Demonstrates effective interpersonal and communication skills to enhance teamwork and collaboration across various settings.* - **Course: 2188 - Microeconomics Analysis**: Improvement plan to be developed.

- **Learning Outcome III** - *Demonstrates proficiency in leveraging core economic principles and techniques to effectively resolve practical economic problems* – Reasons for alumni score should be analyzed.

7 MSc in Management

7.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc in Management**.

The Table 22, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 22: Nova SBE's values and Program objectives for the **MSc in Management**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. Possess knowledge and capacity for understanding at a level that builds upon and enriches that acquired at Undergraduate level.	X	X			
2. Show evidence that they have applied their developed knowledge in an original format, frequently in the context of a research project.		X		X	
3. Ability to apply their knowledge and capacity to comprehend and resolve problems in new and unfamiliar situations, in broader contexts, beyond those directly related to their area of study.			X		X
4. Capacity to integrate knowledge, deal with complex questions, develop solutions or emit judgments in situations where there is limited or incomplete information. An awareness of the ethical and social implications and responsibilities that result from these solutions and judgments or that condition them.				X	X
5. Communicate conclusions, and the knowledge and reasoning underlying them in a clear and unambiguous fashion.	X	X			

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
6. Competencies that allow for a life-long learning experience in a fundamentally selfmotivated and autonomous manner.		**X**		**X**	

7.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc in Management**, as detailed in the Table 23.

Table 23: Program Learning Outcomes for the **MSc in Management**

	Outcome
I	Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing
II	Has a strategic understanding of the business environment
III	Is able to apply analytical skills to real world business problems
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 24, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc in Management** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 24: Levels of Proficiency for Learning Outcomes in the **MSc in Management**

	Developing	Proficient	Expert
I	Identifies the roles of the different knowledge areas of management	Employs the tools of the different knowledge areas of management	Interprets the different knowledge areas of management, and understanding how they interact and impact on each other.
II	Identifies the different strategic forces influencing the business environment	Analyzes the business environment, and understands how the different forces affecting it might influence its future development	Plans for future developments in the business enviroment and adjust his business strategy accordingly
III	Recognizes that real world business problems must be addressed in an analytical way	Employs analytical skills to real world business problems, in order to gain insights	Supports decision making processes with his/hers analysis of real world business problems
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.

	Developing	Proficient	Expert
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 75 of the Appendix 4.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 76, located in Appendix 4.B.

7.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc in Management** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 25 below.

Table 25: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc in Management**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S2	Strategy	2584	**I**	Proficient	Mid-term exam	
S1	Financial Management	2414	**III**	Proficient	Group Assignments	**X**
S1	Advanced Financial Management	2581	**III**	Expert	Assigments	**X**
T2	Human Resources Management	2336	**IV**	Proficient	Group presentation	

7.4 Results

The results for the **MSc in Management** for the academic year of 2023/2024, were the following.

7.4.1 Direct Measures

Learning Outcome I: Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing

Course assessed: Strategy

Assessment moment: Mid-term exam
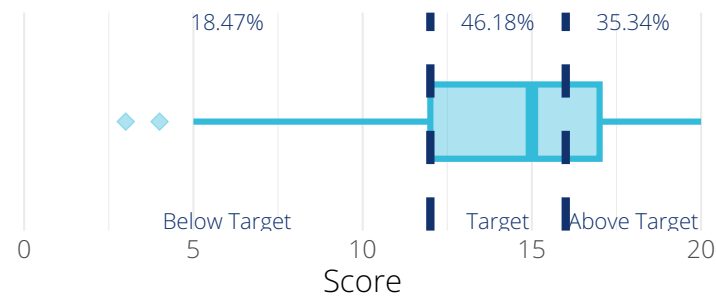
KPIs	
# of assessments[1]	249
Mean score[2]	14.61
Below Target	18.47%
On Target	46.18%
Above Target	35.34%
Total On Target and Above Target	**81.53%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Human Resources Management

Assessment moment: Group presentation
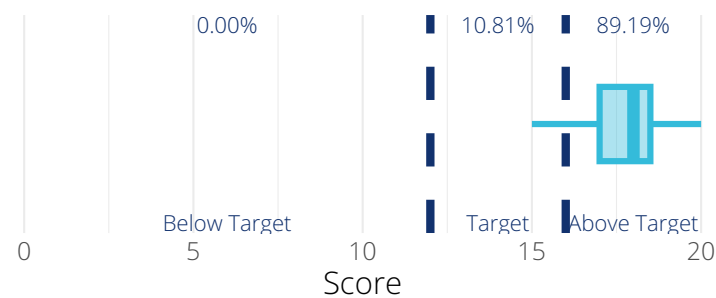
KPIs	
# of assessments[1]	185
Mean score[2]	17.66
Below Target	0.00%
On Target	10.81%
Above Target	89.19%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome III - Reassessment 1:   Is able to apply analytical skills to real world business problems

Course assessed: Financial Management

Assessment moment: Group Assignments
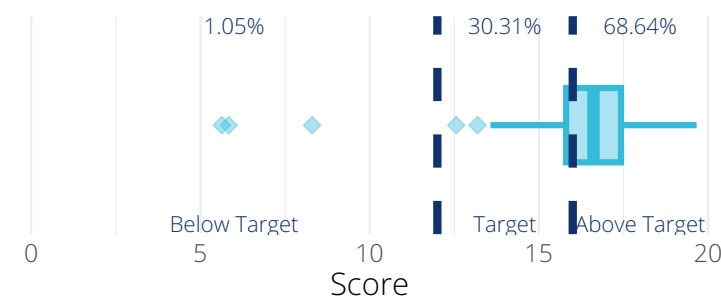
KPIs	
# of assessments[1]	287
Mean score[2]	16.48
Below Target	1.05%
On Target	30.31%
Above Target	68.64%
Total On Target and Above Target	**98.95%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome III - Reassessment 2:   Is able to apply analytical skills to real world business problems

Course assessed: Advanced Financial Management

Assessment moment: Assigments
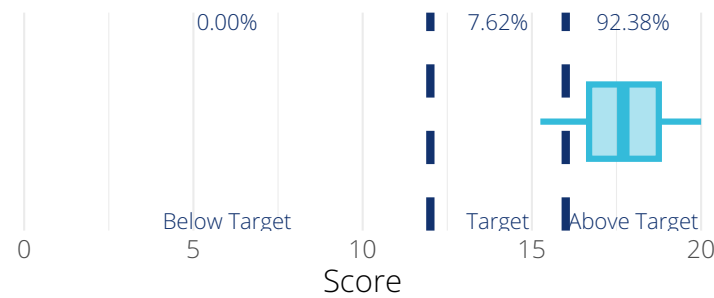
KPIs	
# of assessments[1]	315
Mean score[2]	17.72
Below Target	0.00%
On Target	7.62%
Above Target	92.38%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

7.4.2 Indirect Measures

Alumni surveys: Below, Table 26 provides a summary of the alumni survey results for the **MSc in Management** during the 2023/2024 academic year. The scores, based on responses from **238** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 26: Results of the alumni surveys for the **MSc in Management**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	5.16	98.32	A
II	Has a strategic understanding of the business environment	5.02	97.06	A
III	Is able to apply analytical skills to real world business problems	5.15	98.32	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.38	99.58	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.18	97.89	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.67	100.00	A

	Outcome	Mean[1]	TTAT[2]	Score

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc in Management** in the 2023/2024 academic year are summarized in Table 27. Based on feedback from **20** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 27: Results of the employer surveys for the **MSc in Management**

	Outcome	Mean[1]	TTAT[2]	Score
I	Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	5.25	100	A
II	Has a strategic understanding of the business environment	5.20	100	A
III	Is able to apply analytical skills to real world business problems	5.30	95	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.35	100	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.20	90	B
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.16	100	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

7.4.3 Integrated assurance overview

The table below, Table 28, presents the integrated results for the program **MSc in Management**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 28: Integrated direct and indirect measures results for the **MSc in Management**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		B		A	A
II	A			A	A
III	A		A	A	A
IV		A		A	A
V	A			B	A

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
VI	A			A	A

[1] Academic year 2022/2023

[2] When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc in Management**.

7.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 7.4.3, no relevant issues were detected, and no specific actions need to be taken at this time. However, Academic Directors should continue their regular monitoring of the program to ensure that the desired learning outcomes are effectively reflected in the program's courses.

8 MSc in Finance

8.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc in Finance**.

The Table 29, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 29: Nova SBE's values and Program objectives for the **MSc in Finance**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. Students should acquire critical thinking skills and the ability to pursue individual and autonomous work	X	X	X		
2. Students should develop interpersonal, teamwork and communication skills. In particular, they should be able to interact and communicate with people with different backgrounds and areas of expertise.			X		X
3. Students should acquire a solid theoretical background in Finance and the capacity to apply this knowledge to approach new issues and to solve problems	X	X		X	
4. Students will learn how to use sophisticated quantitative tools and advanced technologies in the analysis and resolution of financial problems, in complex environments and under incomplete information				X	X

8.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc in Finance**, as detailed in the Table 30.

Table 30: Program Learning Outcomes for the **MSc in Finance**

	Outcome
I	Is able to apply finance concepts and tools to real world problems
II	Has a strategic understanding of the business environment
III	Is able to apply analytical skills to real world business problems
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 31, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc in Finance** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 31: Levels of Proficiency for Learning Outcomes in the **MSc in Finance**

	Developing	Proficient	Expert
I	Summarizes the importance of financial concepts and tools in addressing real world challenges	Applies financial concepts and tools to get insights in to real world challenges	Supports decision making processes, by applying finance concepts and tools to real world challenges
II	Summarizes the different strategic forces influencing the business environment	Analyzes the business environment, and understands how the different forces affecting it might influence its future development	Plans for future developments in the business environment and adjust his business strategy accordingly
III	Recognizes that real world business problems must be addressed in an analytical way	Employs analytical skills to real world business problems, in order to gain insights	Supports decision making processes with his/hers analysis of real world business problems
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills

	Developing	Proficient	Expert
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 77 of the Appendix 5.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 78, located in Appendix 5.B.

8.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc in Finance** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 32 below.

Table 32: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc in Finance**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
T1	Empirical Methods in Finance	2269	**I**	Proficient	Final exam	
T2	Financial Modeling	2270	**IV**	Proficient	Group project	

8.4 Results

The results for the **MSc in Finance** for the academic year of 2023/2024, were the following.

8.4.1 Direct Measures

Learning Outcome I: Is able to apply finance concepts and tools to real world problems

Course assessed: Empirical Methods in Finance

Assessment moment: Final exam
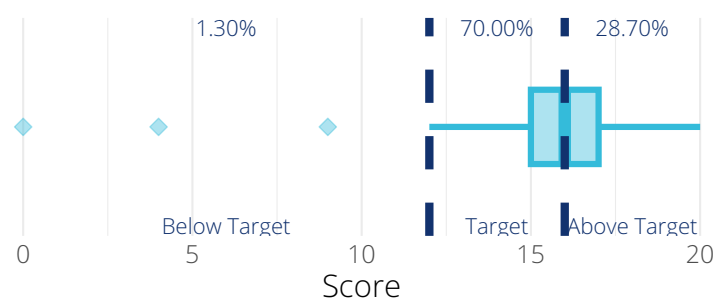
KPIs	
# of assessments[1]	230
Mean score[2]	15.67
Below Target	1.30%
On Target	70.00%
Above Target	28.70%
Total On Target and Above Target	**98.70%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Financial Modeling

Assessment moment: Group project
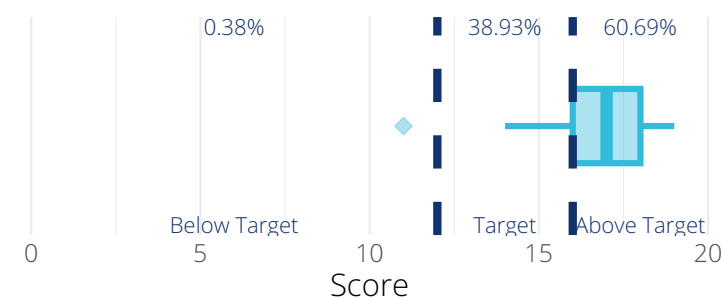
KPIs	
# of assessments[1]	262
Mean score[2]	16.72
Below Target	0.38%
On Target	38.93%
Above Target	60.69%
Total On Target and Above Target	**99.62%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

8.4.2 Indirect Measures

Alumni surveys: Below, Table 33 provides a summary of the alumni survey results for the **MSc in Finance** during the 2023/2024 academic year. The scores, based on responses from **151** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 33: Results of the alumni surveys for the **MSc in Finance**

	Outcome	Mean[1]	TTAT[2]	Score
I	Is able to apply finance concepts and tools to real world problems	5.10	96.69	A
II	Has a strategic understanding of the business environment	4.87	93.38	A
III	Is able to apply analytical skills to real world business problems	5.02	95.97	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.19	96.64	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.27	97.33	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.56	77.78	C

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc in Finance** in the 2023/2024 academic year are summarized in Table 34. Based on feedback from **19** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 34: Results of the employer surveys for the **MSc in Finance**

	Outcome	Mean[1]	TTAT[2]	Score
I	Is able to apply finance concepts and tools to real world problems	5.16	94.74	A
II	Has a strategic understanding of the business environment	5.37	100.00	A
III	Is able to apply analytical skills to real world business problems	5.37	100.00	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.32	100.00	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.47	100.00	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.28	100.00	A

[1] On a Likert scale of 1 to 6

Outcome	Mean[1]	TTAT[2]	Score

[2]Total On Target and Above Target

8.4.3 Integrated assurance overview

The table below, Table 35, presents the integrated results for the program **MSc in Finance**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 35: Integrated direct and indirect measures results for the **MSc in Finance**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		A		A	A
II	A			A	A
III	A			A	A
IV		A		A	A
V	A			A	A
VI	A			A	C

[1]Academic year 2022/2023

[2]When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc in Finance**.

8.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 8.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome VI** - *Leverages a deep understanding of sustainability in business and economics to drive ethical transformations and positive outcomes across organizational and project contexts.* – Reasons for alumni score should be analyzed.

9 MSc in Business Analytics

9.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc Business Analytics**.

The Table 36, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 36: Nova SBE's values and Program objectives for the **MSc Business Analytics**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. To understand how to design and manage data-driven organizations (organizational)		X			
2. To learn how to lead projects and interdisciplinary teams to solve complex problems and take and implement complex decisions leveraging data (team, leadership);		X			X
3. To understand/deploy the available technical tools for curation and manipulation of data and the prospects for their development (technical);	X			X	
4. To learn how to transform hard data into storytelling and frameworks that improve human decisions and inspire commitment (communication, leadership and implementation);			X		X
5. To be aware of the limitations of data-driven decisions and the role of human cognitive systems and the ethical and legal constraints (critical thinking).	X	X			

9.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc Business Analytics**, as detailed in the Table 37.

Table 37: Program Learning Outcomes for the **MSc Business Analytics**

	Outcome
I	Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes
II	Has a strategic understanding of the business environment
III	Deploys technical tools and frameworks, for manipulation, curation, analysis and visualization of data, transforming hard-data in to decision making information
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 38, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc Business Analytics** program. Each Learning Outcome is mapped across three proficiency levels—Developing,

Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 38: Levels of Proficiency for Learning Outcomes in the **MSc Business Analytics**

	Developing	Proficient	Expert
I	Recognizes that data needs to be leveraged in an ethical way in order to support decision making processes	Applies project management tools in to data driven projects, that leverage data in an ethical way	Creates, deploys and manages data driven complex projects, that leverage data in an ethical way
II	Identifies the different strategic forces influencing the business environment	Analyzes the business environment, and understands how the different forces affecting it might influence its future development	Plans for future developments in the business environment and adjust his business strategy accordingly
III	Recognizes that decision making information can be attained by applying technical tools and frameworks in to hard-data	Applies technical tools and frameworks in to hard-data, in order to gain insights	Interprets hard-data in to decision making information by applying technical tools and frameworks
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 79 of the Appendix 6.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 80, located in Appendix 6.B.

9.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc Business Analytics** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 39 below.

Table 39: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc Business Analytics**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
T2	Modeling Business Decisions	2346	**I**	Expert	Final exam	**X**
S1	Advanced Data Analysis	2597	**I**	Expert	Midterm	
T2	Digital Markets	2607	**IV**	Proficient	Group project 2	

9.4 Results

The results for the **MSc Business Analytics** for the academic year of 2023/2024, were the following.

9.4.1 Direct Measures

Learning Outcome I: Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes

Course assessed: Advanced Data Analysis

Assessment moment: Midterm
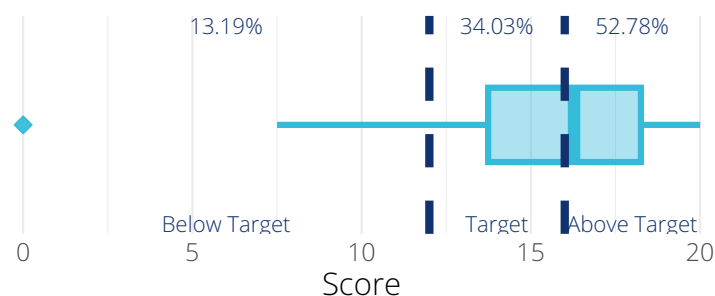
KPIs	
# of assessments[1]	144
Mean score[2]	15.46
Below Target	13.19%
On Target	34.03%
Above Target	52.78%
Total On Target and Above Target	**86.81%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Digital Markets

Assessment moment: Group project 2
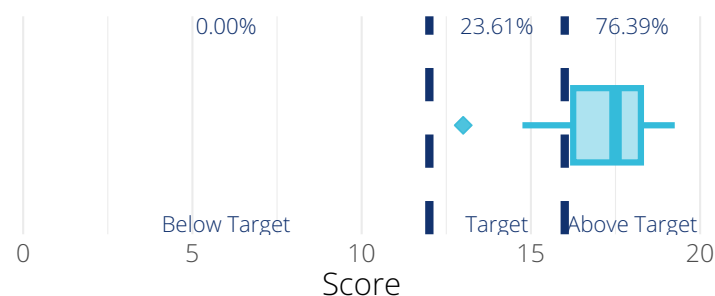
KPIs	
# of assessments[1]	144
Mean score[2]	17.20
Below Target	0.00%
On Target	23.61%
Above Target	76.39%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome I - Reassessment : Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes

Course assessed: Modeling Business Decisions

Assessment moment: Final exam
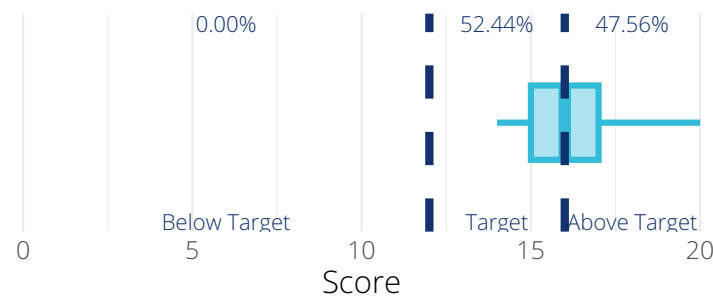
KPIs	
# of assessments[1]	82
Mean score[2]	16.43
Below Target	0.00%
On Target	52.44%
Above Target	47.56%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

9.4.2 Indirect Measures

Alumni surveys: Below, Table 40 provides a summary of the alumni survey results for the **MSc Business Analytics** during the 2023/2024 academic year. The scores, based on responses from **32** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 40: Results of the alumni surveys for the **MSc Business Analytics**

	Outcome	Mean[1]	TTAT[2]	Score
I	Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes	4.69	93.75	A
II	Has a strategic understanding of the business environment	4.75	93.75	A
III	Deploys technical tools and frameworks, for manipulation, curation, analysis and visualization of data, transforming hard-data in to decision making information	4.88	90.62	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.12	96.88	A
V	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.25	100.00	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	3.67	66.67	C

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc Business Analytics** in the 2023/2024 academic year are summarized in Table 41. Based on feedback from **13** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 41: Results of the employer surveys for the **MSc Business Analytics**

	Outcome	Mean[1]	TTAT[2]	Score
I	Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes	4.85	92.31	A
II	Has a strategic understanding of the business environment	4.86	100.00	A
III	Deploys technical tools and frameworks, for manipulation, curation, analysis and visualization of data, transforming hard-data in to decision making information	4.92	92.31	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.29	100.00	A
V	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.21	100.00	A

	Outcome	Mean[1]	TTAT[2]	Score
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.00	100.00	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

9.4.3 Integrated assurance overview

The table below, Table 42, presents the integrated results for the program **MSc Business Analytics**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 42: Integrated direct and indirect measures results for the **MSc Business Analytics**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I	C	B	A	A	A
II	A			A	A
III	A			A	A
IV		A		A	A
V	A			A	A
VI	A			A	C

[1]Academic year 2022/2023

[2]When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc Business Analytics**.

9.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 9.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome VI** - *Leverages a deep understanding of sustainability in business and economics to drive ethical transformations and positive outcomes across organizational and project contexts.* – Reasons for alumni score should be analyzed.

10 MSc in Impact Entrepreneurship & Innovation

10.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc Impact Entrepreneurship & Innovation**.

The Table 43, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 43: Nova SBE's values and Program objectives for the **MSc Impact Entrepreneurship & Innovation**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. to teach students how to identify impactful business ideas	X	X	X	X	
2. to enable students to develop new business models that respond to market needs and challenges		X	X	X	X
3. to promote experimental and experiential learning in the implementation of new impact entrepreneurship projects, based on an integrated process of analysis and decision making.	X	X			X

10.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc Impact Entrepreneurship & Innovation**, as detailed in the Table 44.

Table 44: Program Learning Outcomes for the **MSc Impact Entrepreneurship & Innovation**

	Outcome
I	Identifies a business opportunities, develops a business plan to take advantage of it in an ethical way, identifying relevant KPIs that will guide it's development
II	Has a strategic understanding of the business environment
III	Learns from failure in entrepreneurial projects, is conscious of the interactive nature of continuous improvement process in entrepreneurship
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 45, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc Impact Entrepreneurship & Innovation** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 45: Levels of Proficiency for Learning Outcomes in the **MSc Impact Entrepreneurship & Innovation**

	Developing	Proficient	Expert
I	Summarizes the importance of a business plan as a tool to pursue a business opportunity in a structured way	Analyzes a business opportunity and outline a business plan to pursue it in an ethical way	Creates a detailed business plan to pursue it in an ethical way, identifying relevant KPI that will guide its development
II	Identifies the different strategic forces influencing the business environment	Analyzes the business environment, and understands how the different forces affecting it might influence its future development	Plans for future developments in the business environment and adjust his business strategy accordingly
III	Recognizes that failure is an intrinsic part of the entrepreneurial process	Analyzes to causes of failure of entrepreneurial projects, transforming them in to lessons learned	Interprets failure, incorporating lessons learned in to future entrepreneurial projects
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 81 of the Appendix 7.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 82, located in Appendix 7.B.

10.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc Impact Entrepreneurship & Innovation** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 46 below.

Table 46: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc Impact Entrepreneurship & Innovation**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S1	Entrepreneurship with impact	2628	**I**	Proficient	Journal	
T4	Data Science for Impact	2710	**IV**	Expert	Project	

10.4 Results

The results for the **MSc Impact Entrepreneurship & Innovation** for the academic year of 2023/2024, were the following.

10.4.1 Direct Measures

Learning Outcome I: Identifies a business opportunities, develops a business plan to take advantage of it in an ethical way, identifying relevant KPIs that will guide it's development

Course assessed: Entrepreneurship with impact

Assessment moment: Journal
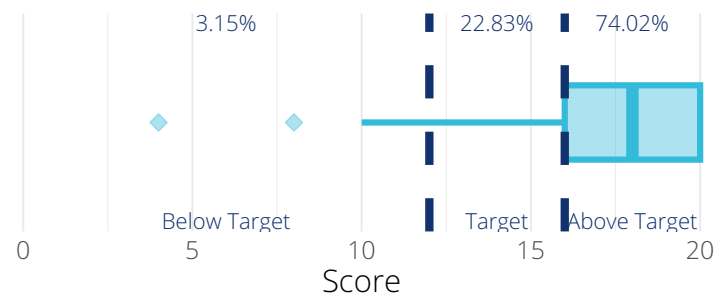
KPIs	
# of assessments[1]	127
Mean score[2]	17.74
Below Target	3.15%
On Target	22.83%
Above Target	74.02%
Total On Target and Above Target	**96.85%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Data Science for Impact

Assessment moment: Project
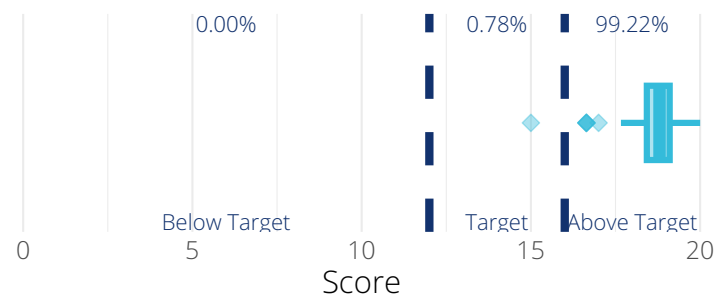
KPIs	
# of assessments[1]	128
Mean score[2]	18.72
Below Target	0.00%
On Target	0.78%
Above Target	99.22%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

10.4.2 Indirect Measures

Alumni surveys: Below, Table 47 provides a summary of the alumni survey results for the **MSc Impact Entrepreneurship & Innovation** during the 2023/2024 academic year. The scores, based on responses from **3** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 47: Results of the alumni surveys for the **MSc Impact Entrepreneurship & Innovation**

	Outcome	Mean[1]	TTAT[2]	Score
I	Identifies a business opportunities, develops a business plan to take advantage of it in an ethical way, identifying relevant KPIs that will guide it's development	5.33	100	A
II	Has a strategic understanding of the business environment	5.67	100	A
III	Learns from failure in entrepreneurial projects, is conscious of the interactive nature of continuous improvement process in entrepreneurship	5.33	100	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.33	100	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.00	100	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	6.00	100	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc Impact Entrepreneurship & Innovation** in the 2023/2024 academic year are summarized in Table 48. Based on feedback from **10** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 48: Results of the employer surveys for the **MSc Impact Entrepreneurship & Innovation**

	Outcome	Mean[1]	TTAT[2]	Score
I	Identifies a business opportunities, develops a business plan to take advantage of it in an ethical way, identifying relevant KPIs that will guide it's development	4.8	80	C
II	Has a strategic understanding of the business environment	5.0	90	B
III	Learns from failure in entrepreneurial projects, is conscious of the interactive nature of continuous improvement process in entrepreneurship	5.2	90	B
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.3	90	B
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.3	90	B
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.0	90	B

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

10.4.3 Integrated assurance overview

The table below, Table 49, presents the integrated results for the program **MSc Impact Entrepreneurship & Innovation**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 49: Integrated direct and indirect measures results for the **MSc Impact Entrepreneurship & Innovation**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		A		C	A
II	A			B	A
III	A			B	A
IV		A		B	A
V	A			B	A
VI	A			B	A

[1]Academic year 2022/2023

[2]When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc Impact Entrepreneurship & Innovation**.

10.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 10.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome I** - *Utilizes a deep understanding of market trends and societal demands to craft actionable and innovative strategies that address these needs.* – Reasons for employer score should be analyzed.

11 MSc in InternationalDevelopment and Public Policy

11.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **MSc International Development and Public Policy**.

The Table 50, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 50: Nova SBE's values and Program objectives for the **MSc International Development and Public Policy**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. understand the fundamentals of Inferential Statistics and how sample information can be used to help in the decision process.	X	X			
2. gain a broad knowledge of the development of international institutions after WWII and their adaptation to the end of the Cold War, along with the circumstances and constraints influencing them.			X		X
3. understand the theories that explain economic development, especially neo-realism and neo-liberalism.			X	X	X
4. To understand similarities and differences in the development of international institutions and the post WWII utilization of international institutions to spread of liberalism.		X		X	X
5. To develop students' ability to research, present and sustain a critical viewpoint.	X				

11.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **MSc International Development and Public Policy**, as detailed in the Table 51.

Table 51: Program Learning Outcomes for the **MSc International Development and Public Policy**

	Outcome
I	Understands the key theories and practices in core areas of development and public policy
II	Has a broad understanding of the institutional framework, their constraints and how they were shaped by the various economic theories
III	Is able to research, collect and analyze information, in order to develop a critical viewpoint and make decisions
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1] *Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 52, below, outlines the levels of proficiency for the Learning Outcomes in the **MSc International Development and Public Policy** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 52: Levels of Proficiency for Learning Outcomes in the **MSc International Development and Public Policy**

	Developing	Proficient	Expert
I	Summarizes that important insights in to actual situations can be gained my applying key theories and practices in core areas of development and public policy	Applies key theories and practices in core areas of development and public policy to actual situations and gain insights	Supports decision making information, by interpreting actual situation with key theories and practices in core areas of development and public policy
II	Summarizes international intitution framework, and that it was shaped by the various economic theories	Relates the international institution framework, to the various economic theories that shaped them	Interprets the current international institution framework, describing its constraints, and how they were shaped over the years by the various economic theories
III	Recognizes that complex real world issues must be addressed in an analytical way	Applies analytical skills to real world business problems, in order to gain insights	Appraises complex real world issues, and is able to develop a critical veiwpoint and attain decision making information in the process
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 83 of the Appendix 8.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 84, located in Appendix 8.B.

11.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **MSc International Development and Public Policy** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 53 below.

Table 53: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **MSc International Development and Public Policy**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
T2	Public Policy I	2746	**I**	Developing	Final exam	**X**
A	Policy Analysis Exercise	2742	**I**	Expert	Final exam	
T3	Development Economics II	2739	**IV**	Proficient	Presentation of a research paper	

11.4 Results

The results for the **MSc International Development and Public Policy** for the academic year of 2023/2024, were the following.

11.4.1 Direct Measures

Learning Outcome I: Understands the key theories and practices in core areas of development and public policy

Course assessed: Policy Analysis Exercise

Assessment moment: Final exam
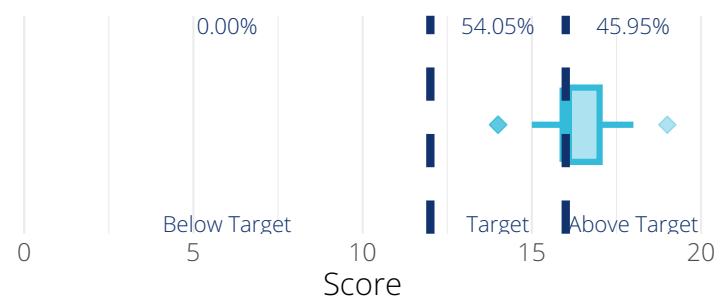
KPIs	
# of assessments[1]	74
Mean score[2]	16.43
Below Target	0.00%
On Target	54.05%
Above Target	45.95%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Development Economics II

Assessment moment: Presentation of a research paper
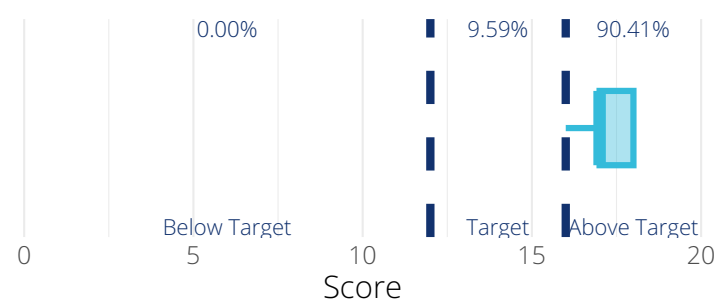
KPIs	
# of assessments[1]	73
Mean score[2]	17.30
Below Target	0.00%
On Target	9.59%
Above Target	90.41%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome I - Reassessment : Understands the key theories and practices in core areas of development and public policy

Course assessed: Public Policy I

Assessment moment: Final exam
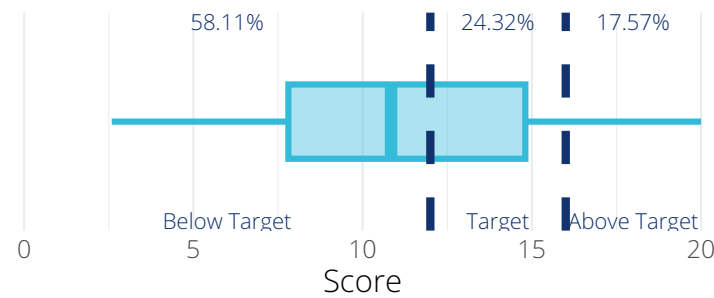
KPIs	
# of assessments[1]	74
Mean score[2]	11.34
Below Target	58.11%
On Target	24.32%
Above Target	17.57%
Total On Target and Above Target	**41.89%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

11.4.2 Indirect Measures

Alumni surveys: Below, Table 54 provides a summary of the alumni survey results for the **MSc International Development and Public Policy** during the 2023/2024 academic year. The scores, based on responses from **3** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 54: Results of the alumni surveys for the **MSc International Development and Public Policy**

	Outcome	Mean[1]	TTAT[2]	Score
I	Understands the key theories and practices in core areas of development and public policy	4.67	66.67	C
II	Has a broad understanding of the institutional framework, their constraints and how they were shaped by the various economic theories	5.00	100.00	A
III	Is able to research, collect and analyze information, in order to develop a critical viewpoint and make decisions	5.00	100.00	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.33	100.00	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.33	100.00	A

	Outcome	Mean[1]	TTAT[2]	Score
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.00	100.00	A

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

Employers surveys: The results of the employer survey for the **MSc International Development and Public Policy** in the 2023/2024 academic year are summarized in Table 55. Based on feedback from **7** employers, the scores are presented on an A, B, C, F scale, as detailed in Section 3.5.2.

Table 55: Results of the employer surveys for the **MSc International Development and Public Policy**

	Outcome	Mean[1]	TTAT[2]	Score
I	Understands the key theories and practices in core areas of development and public policy	4.71	85.71	B
II	Has a broad understanding of the institutional framework, their constraints and how they were shaped by the various economic theories	4.57	85.71	B
III	Is able to research, collect and analyze information, in order to develop a critical viewpoint and make decisions	4.71	85.71	B
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	4.71	85.71	B
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	4.86	85.71	B
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	4.71	85.71	B

[1] On a Likert scale of 1 to 6

[2] Total On Target and Above Target

11.4.3 Integrated assurance overview

The table below, Table 56, presents the integrated results for the program **MSc International Development and Public Policy**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive evaluation of the learning outcomes.

Table 56: Integrated direct and indirect measures results for the **MSc International Development and Public Policy**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I	F	A	F	B	C

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
II	A			B	A
III	B			B	A
IV		A		B	A
V	A			B	A
VI	A			B	A

[1] Academic year 2022/2023

[2] When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **MSc International Development and Public Policy**.

11.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 11.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome I** - *Applies understanding of the institutional framework, including its constraints and historical economic influences, to navigate and influence policy decisions.* – **Course 2746 - Public Policy I**: Improvement plan to be developed.

- **Learning Outcome I** - *Applies understanding of the institutional framework, including its constraints and historical economic influences, to navigate and influence policy decisions.*: Reasons for alumni score should be analyzed

12 PhD in Economics and Finance

12.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **PhD Economics and Finance**.

The Table 57, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 57: Nova SBE's values and Program objectives for the **PhD Economics and Finance**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. training highly qualified independent researchers for positions in international academia and research institutions, as well as for top positions in governmental organizations, multilateral organizations, and economic/policy think tanks.	**X**		**X**		**X**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
2. Endowing the candidates with the state-of-the-art of both theoretical and empirical tools that allow them do advance the frontier of research and provide evidence-based policy recommendations		**X**		**X**	
3. doctoral graduates are up to date with the most recent advances in their field of knowledge, get exposed to research from the very early stages and pursue an internationalization track.			**X**	**X**	**X**

12.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **PhD Economics and Finance**, as detailed in the Table 58.

Table 58: Program Learning Outcomes for the **PhD Economics and Finance**

	Outcome
I	Is able to apply research concepts and tools
II	Is intellectually independent, and is able to explore key questions in the field of study
III	Is able autonomously structure and develop meaningful and original research projects
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]Universal learning Outcomes shared among all Nova SBE programs.

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 59, below, outlines the levels of proficiency for the Learning Outcomes in the **PhD Economics and Finance** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 59: Levels of Proficiency for Learning Outcomes in the **PhD Economics and Finance**

	Developing	Proficient	Expert
I	Recognizes that relevant and innovative insights can be attained by applying research concepts and tools	Employs research concepts and tools, in an ethical way, in order to gain insights in to relevant research questions	Supports innovative and relevant research with research concepts and tools, in an ethical way
II	Recognizes that in order to explore key questions, in a meaningful way, one must de intellectually independent	Employs an intellectually independent approach to key questions in the field of study	Interprets relevant key questions in the field of study, in an autonomous intellectually independent way

	Developing	Proficient	Expert
III	Recognizes that relevant meaningful research projects must have a degree of originality	Outlines a structure for a meaningful and original research project	Autonomously designs and develops research projects, that will lead to meaningful and original research projects
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 85 of the Appendix 9.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 86, located in Appendix 9.B.

12.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **PhD Economics and Finance** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 60 below.

Table 60: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **PhD Economics and Finance**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
S2	Advanced Topics in Economics - Development	6109	I	Expert	Assigment	
S1	Microeconomic Theory I	6101	II	Expert	Midterm	X
S1	Advanced Topics in Economics - Behavioral	6124	IV	Expert	Presentations	
S2	Microeconomic Theory II	6121	V	Expert	Problem set	X

12.4 Results

The results for the **PhD Economics and Finance** for the academic year of 2023/2024, were the following.

12.4.1 Direct Measures

Learning Outcome I: Is able to apply research concepts and tools

Course assessed: Advanced Topics in Economics - Development

Assessment moment: Assigment
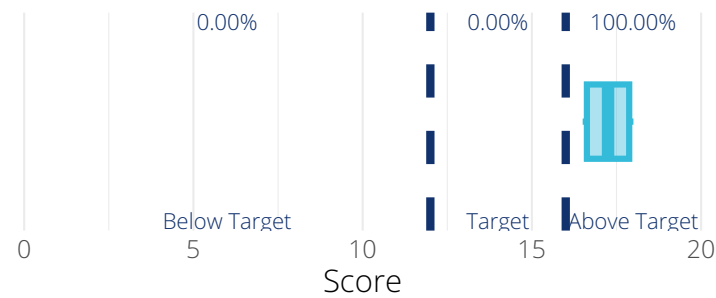
KPIs	
# of assessments[1]	6
Mean score[2]	17.25
Below Target	0.00%
On Target	0.00%
Above Target	100.00%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Advanced Topics in Economics - Behavioral

Assessment moment: Presentations
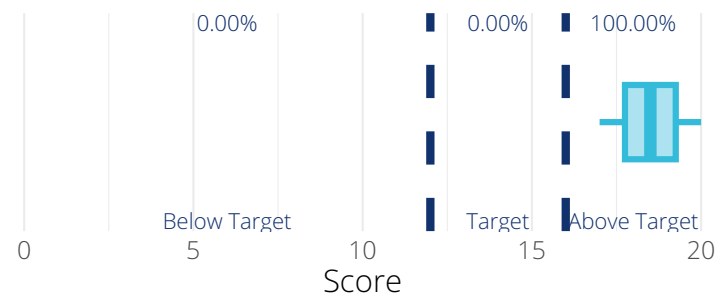
KPIs	
# of assessments[1]	8
Mean score[2]	18.50
Below Target	0.00%
On Target	0.00%
Above Target	100.00%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome II - Reassessment : Is intellectually independent, and is able to explore key questions in the field of study

Course assessed: Microeconomic Theory I

Assessment moment: Midterm
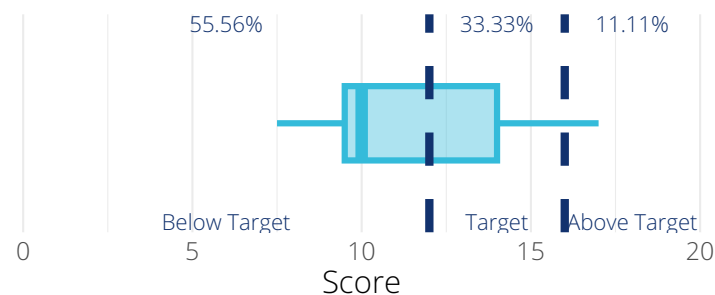
KPIs	
# of assessments[1]	9
Mean score[2]	11.50
Below Target	55.56%
On Target	33.33%
Above Target	11.11%
Total On Target and Above Target	**44.44%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome V - Reassessment : Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner

Course assessed: Microeconomic Theory II

Assessment moment: Problem set

KPIs	
# of assessments[1]	7
Mean score[2]	14.92
Below Target	0.00%
On Target	71.43%
Above Target	28.57%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

12.4.2 Indirect Measures

Alumni surveys: Below, Table 61 provides a summary of the alumni survey results for the **PhD Economics and Finance** during the 2023/2024 academic year. The scores, based on responses from **2** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 61: Results of the alumni surveys for the **PhD Economics and Finance**

	Outcome	Mean[1]	TTAT[2]	Score
I	Is able to apply research concepts and tools	5.0	100	A
II	Is intellectually independent, and is able to explore key questions in the field of study	4.5	100	A
III	Is able autonomously structure and develop meaningful and original research projects	5.0	100	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.0	100	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	5.0	100	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	5.0	100	A

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **PhD Economics and Finance** are not available for the academic year 2023/24. Given the small batch of graduates each year and the fragmented universe of employers, it was not possible to gather sufficient data during this period.

12.4.3 Integrated assurance overview

The table below, Table 62, presents the integrated results for the program **PhD Economics and Finance**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a

comprehensive evaluation of the learning outcomes.

Table 62: Integrated direct and indirect measures results for the **PhD Economics and Finance**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		A			A
II	C		F		A
III	A				A
IV		A			A
V	C		A		A
VI	A				A

[1] Academic year 2022/2023

[2] When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **PhD Economics and Finance**.

12.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 12.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome II** - *Applies research concepts and tools* – **Course 6101 - Microeconomic Theory I**: Improvement plan to be developed.

13 PhD in Management

13.1 Program objectives

Based on Nova SBE's core values, the program objectives, which were previously defined and submitted to A3ES and international accreditation agencies, have been systematically mapped. This mapping process, as described in Section 3.1, ensures alignment with our institutional ethos and educational goals for the program **PhD Management**.

The Table 63, below, provides a detailed overview of how these objectives correspond to the learning outcomes, illustrating the integration of Nova SBE's values into our educational framework:

Table 63: Nova SBE's values and Program objectives for the **PhD Management**

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
1. Graduates should be able to critically apply theories and methodologies in order to identify and explore key questions, issues, and problems in management and develop meaningful and original research for the discipline and/or context in which it was developed		**X**		**X**	

Objective	Rigor	Impact	Worldliness	Vanguardism	Connectivity
2. should become intellectually independent and be able to autonomously develop their own projects within their specific research stream. This should enable them to submit applications, as independent researchers, to national (e.g., FCT) and international (e.g., EU) funding agencies	**X**		**X**		**X**
3. should demonstrate mastery of several parallel skills, namely problem solving, information management, collaboration and teamwork, oral and written communication, and other skills that are transferable for a career in higher education and other areas. These learning outcomes are grounded in a strong emphasis on ethical standards in research and management practice.	**X**	**X**	**X**	**X**	

13.2 Learning Outcomes

After evaluating the Program Objectives and their alignment with Nova SBE's core values, and considering the Learning Goals structure outlined in the Section 3.2, we have defined the following **Learning Outcomes** for the program **PhD Management**, as detailed in the Table 64.

Table 64: Program Learning Outcomes for the **PhD Management**

	Outcome
I	Is able to apply research concepts and tools
II	Is intellectually independent, and is able to explore key questions in the field of management
III	Is able autonomously structure and develop meaningful and original research projects
IV[1]	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork
V[1]	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner
VI[1]	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations

[1]*Universal learning Outcomes shared among all Nova SBE programs.*

These Learning Outcomes are described according to the three levels of proficiency defined in Section 3.2: Developing, Proficient, and Expert. Table 65, below, outlines the levels of proficiency for the Learning Outcomes in the **PhD Management** program. Each Learning Outcome is mapped across three proficiency levels—Developing, Proficient, and Expert—detailing the competencies students are expected to demonstrate as they progress through the program.

Table 65: Levels of Proficiency for Learning Outcomes in the **PhD Management**

	Developing	Proficient	Expert
I	Recognizes that relevant and innovative insights can be attained by applying research concepts and tools	Employs research concepts and tools, in an ethical way, in order to gain insights in to relevant research questions	Supports innovative and relevant research with research concepts and tools, in an ethical way
II	Recognizes that in order to explore key questions, in a meaningful way, one must de intellectually independent	Employs an intellectually independent approach to key questions in the field of management	Interprets relevant key questions in the field of management, in an autonomous intellectually independent way
III	Recognizes that relevant meaningful research projects must have a degree of originality	Outlines a structure for a meaningful and original research project	Autonomously designs and develops research projects, that will lead to meaningful and original research projects
IV	Recognizes that productive team work can only be attained with effective interpersonal and communication skills.	Employs interpersonal and communication skills to promote a productive work environment	Through his/hers interpersonal and communication skill, creates a productive teamwork environment.
V	Recognizes that the development of knowledge and new skills is not limited to the subjects presented in the study program	Applies his/hers analytical, critical thinking and problem solving skills to new challenges	Autonomously develops new insights and knowledge by applying his/hers analytical, critical thinking and problem solving skills
VI	Recognizes the importance of ethical, social, and environmental issues and demonstrates a foundational understanding of sustainable business and economic models.	Understands sustainable business and economic models, and effectively applies ethical, social, and environmental principles to decision-making processes.	Possesses a well-established and comprehensive understanding of sustainable business and economic models, consistently upholds a strong commitment to ethical, social, and environmental stewardship, and integrates these principles into decision-making processes.

The defined Learning Outcomes contribute to achieving the program's pre-defined objectives, as detailed in the Table 87 of the Appendix 10.A. Additionally, the specific contributions of individual courses to each Learning Outcome, along with the corresponding levels of proficiency achieved, are detailed in Table 88, located in Appendix 10.B.

13.3 2023/2024 Academic year

For the academic year 2023/2024, in accordance with the procedure defined in Section 3.5, the following courses were selected for the Learning Outcomes (LO) assessment process for the **PhD Management** program. The details of these courses and their respective contributions to the LO assessment are presented in the Table 66 below.

Table 66: 2023/2024 academic year Selected Learning Outcomes and respective courses for the **PhD Management**

Semester	Course	Code	Outcome	Level	Assessment	Reassessment
T2	Exemplary Research	6202	**I**	Expert	Peer-review	
S2	Hot Topics in Quantitative Methods	6214	**IV**	Expert	Assigments	

13.4 Results

The results for the **PhD Management** for the academic year of 2023/2024, were the following.

13.4.1 Direct Measures

Learning Outcome I: Is able to apply research concepts and tools

Course assessed: Exemplary Research

Assessment moment: Peer-review
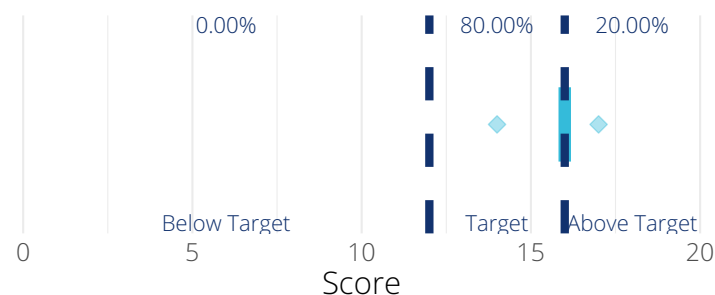
KPIs	
# of assessments[1]	5
Mean score[2]	15.80
Below Target	0.00%
On Target	80.00%
Above Target	20.00%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

Learning Outcome IV: Has effective interpersonal and communication skills, including the ability to pursue productive teamwork

Course assessed: Hot Topics in Quantitative Methods

Assessment moment: Assigments
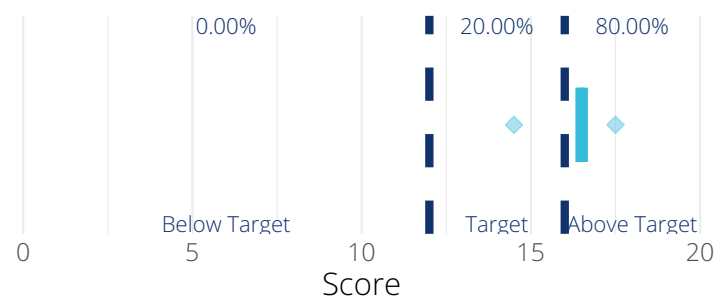
KPIs	
# of assessments[1]	5
Mean score[2]	16.30
Below Target	0.00%
On Target	20.00%
Above Target	80.00%
Total On Target and Above Target	**100.00%**

[1]Total number of assessments used to evaluate the current Learning Outcome.

[2]Value on a scale of 0 to 20.

13.4.2 Indirect Measures

Alumni surveys: Below, Table 67 provides a summary of the alumni survey results for the **PhD Management** during the 2023/2024 academic year. The scores, based on responses from **2** alumni, are reported on an A, B, C, F scale, as outlined in Section 3.5.2.

Table 67: Results of the alumni surveys for the **PhD Management**

	Outcome	Mean[1]	TTAT[2]	Score
I	Is able to apply research concepts and tools	6.0	100	A
II	Is intellectually independent, and is able to explore key questions in the field of management	5.0	100	A
III	Is able autonomously structure and develop meaningful and original research projects	5.5	100	A
IV	Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	5.0	100	A
V	Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	4.5	100	A
VI	Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations	3.5	50	F

[1]On a Likert scale of 1 to 6

[2]Total On Target and Above Target

Employers surveys: The results of the employer survey for the **PhD Management** are not available for the academic year 2023/24. Given the small batch of graduates each year and the fragmented universe of employers, it was not possible to gather sufficient data during this period.

13.4.3 Integrated assurance overview

The table below, Table 68, presents the integrated results for the program **PhD Management**, combining both direct and indirect measures of assessment. Data was triangulated as described in Section 3.5, ensuring a comprehensive

evaluation of the learning outcomes.

Table 68: Integrated direct and indirect measures results for the **PhD Management**

	AY2223[1]	Assessment	Reassessment[2]	Employer	Alumni
I		A			A
II	A				A
III	A				A
IV		A			A
V	A				A
VI	A				F

[1]Academic year 2022/2023

[2]When reassessments yield two different scores, only the higher score is displayed.

By integrating the various dimensions, including the indirect survey-based data from the 2023/2024 academic year, along with the reassessments and regular assessments from 2023/2024, we gain a comprehensive overview of the learning outcomes for the **PhD Management**.

13.5 Outcomes and Recommendations

Drawing on the integrated results presented in Section 13.4.3, we have identified key insights that underpin our strategies for ongoing evaluation and enhancement:

- **Learning Outcome VI** - *Leverages a deep understanding of sustainability in business and economics to drive ethical transformations and positive outcomes across organizational and project contexts.* – Reasons for alumni score should be analyzed

14 Final Recommendations and future developments

2023/2024 marks the end of the first three-year cycle. This initial approach to AoL allowed us to gain important insights not only into the programs, but also into the AoL process itself.

Over these three years, results were generally positive; however, some issues were identified that prompted the implementation of improvement actions by course-responsible faculty, with the support of academic directors. These first three years also enabled the faculty to develop a deeper understanding of the learning outcomes and how they should be reflected in the curriculum.

Nonetheless, several key limitations remain in the current AoL process, including:

- **Lack of LO-Specific Assessment Moments**: In many courses, the existing assessment framework does not offer the granularity needed to align directly with each learning outcome, leading to a reliance on broader, less targeted proxy evaluations.

- **Manual and Time-Consuming Processes**: The current approach for selecting learning outcomes, identifying courses, choosing assessment moments, and gathering data is predominantly manual, labor-intensive, and time-consuming. This restricts the overall throughput of the AoL process, limiting its agility and the ability to promptly address identified issues.

- **Difficulty Interpreting and Reflecting LOs**: Faculty can at times find challenging to clearly interpret learning outcomes and effectively integrate them into the curriculum, which can lead to a misalignment between the intended objectives and course content.

In the next three-year cycle, starting in 2024/2025, we plan to leverage our insights from this initial period to implement strategic improvements across the AoL process. These actions aim to enhance the precision of assessments, streamline data collection, and ensure that learning outcomes are clearly defined and effectively integrated into course content. Our key initiatives include:

- **Align Assessment with Learning Outcomes**: Encourage faculty to develop dedicated assessment moments that directly correspond to each learning outcome, ensuring a more precise evaluation of competency acquisition.

- **Launch of the AoLApp**: To address the manual and time-consuming aspects of the current AoL process, we are launching the AoLApp. Integrated into the already existing online FacultyApp, it will streamline data collection, facilitate seamless interaction between faculty and Academic Directors, and enable the recording of LO-specific improvement plans, thereby enhancing overall efficiency and responsiveness.

- **Review and Simplification of Learning Outcomes**: With the support of academic directors, review the program learning outcomes to simplify the statements, ensure clarity and coherence with the current logic, and align them with Bloom's Taxonomy.

- **Pre-load Existing LO Mapping**: Pre-load the current learning outcomes mapping into the course syllabus and provide faculty with the option to adjust the mapping to better reflect the actual course content. This aims to improve faculty awareness of each program's LOs and ensure a greater alignment between the desired outcomes and course content.

These initiatives demonstrate our commitment to continuous improvement and excellence, aiming to create a more agile, responsive, and effective AoL process that fully supports our community. Moving forward, we remain dedicated to supporting both faculty and students in achieving their full potential through a clearer, more integrated approach to learning outcomes and curriculum development.

Appendices

Appendix 1.A

Table 69: Learning Outcomes and Program Objectives for **BSc in Economics**

	I. Has broad knowledge of national and international economic context, including social, legal, historical and political issues	II. Is able to use quantitative and technical skills for analyzing economic issues	III. Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. A solid knowledge and ability to understand the principles of Economics and their application.		X	X		X	X
2. Personal skills such as communication skills, ability to work individually and in teams, use of computing techniques including research, processing and data presentation.				X		
3. Analytical skills and critical thinking capacities allowing them to build and communicate their own argument.		X		X		X
4. A general education in Management and other related disciplines in the areas of Law, Quantitative Methods and Social Sciences, so that they can analyze and develop solutions and emit judgments, taking into account a variety of scientific, social and ethical aspects.	X				X	X
5. An education which enables them to communicate information, ideas, problems and solutions to diversified audiences.			X	X		

	I. Has broad knowledge of national and international economic context, including social, legal, historical and political issues	II. Is able to use quantitative and technical skills for analyzing economic issues	III. Understands the key theories and practices in core areas of economic science and acquire the ability to apply these to actual situations	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
6. Personal skills that allow for a life-long learning experience in a fundamentally autonomous manner.	X				X	

Appendix 1.B

Table 70: Mapping of Course Proficiency Levels to Learning Outcomes for **BSc in Economics**

Course	Code	Semester	I	II	III	IV	V	VI
Principles of Microeconomics	1100	S1 | S2	Developing	Developing				Developing
Principles of Macroeconomics	1101	S1 | S2	Developing	Developing				Developing
Microeconomics	1102	S1 | S2	Proficient	Developing				Proficient
Macroeconomics	1103	S1 | S2	Proficient	Developing				Proficient
Seminar in European Economics	1104	S1 | S2	Proficient	Proficient	Proficient	Proficient	Proficient	Proficient
Advanced Microeconomics	1111	S1 | S2	Expert	Expert	Expert			Expert
Industrial Organization	1112	S1 | S2			Proficient			
Global Economics I	1113	S1 | S2	Developing	Developing			Developing	Developing
Global Economics II	1114	S1 | S2	Proficient	Proficient			Developing	Proficient
Principles of Management	1200	S1 | S2			Proficient	Proficient		
Financial Accounting	1201	S1 | S2		Developing	Developing			
Finance	1203	S1 | S2		Developing	Developing			
Calculus I	1301	S1 | S2		Developing			Developing	
Calculus II	1302	S1 | S2		Proficient			Developing	
Linear Algebra	1303	S1 | S2		Proficient			Developing	
Data Analysis and Probability	1304	S1 | S2		Expert	Proficient		Proficient	
Statistics for Economics and Management	1305	S1 | S2	Proficient	Proficient	Expert		Proficient	
Econometrics	1306	S1 | S2	Expert	Expert	Expert		Proficient	
Law in Economics and Management	1405	S1 | S2	Proficient	Proficient	Proficient			Proficient
Introduction to Modern and Contemporary History	1409	S1 | S2	Developing		Developing		Proficient	Proficient
Communication, Leadership and Ethics	1458	S1 | S2	Proficient			Expert		Expert
Managing Impactful Projects	1459	S1 | S2			Expert	Expert	Proficient	Expert

Appendix 2.A

Table 71: Learning Outcomes and Program Objectives for **BSc in Management**

	I. Has broad knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	II. Is able to apply analytical skills to real world business problems	III. Has a strategic understanding of the business environment	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. Students will develop analytical, critical thinking and problem solving skills.	X		X		X	X
2. Students will develop effective interpersonal and communication skills, including the ability to pursue productive teamwork.				X		
3. Students will understand the key theories and practices in core management areas and apply them in real business situations.	X	X			X	X
4. Students will be able to use quantitative and technical skills in business situations.	X	X	X			
5. Students will acquire a broad knowledge of the national and global business environment, from a variety of perspectives (managerial, economic, legal, cultural, and ethical).			X	X		X

Table 72: Mapping of Course Proficiency Levels to Learning Outcomes for **BSc in Management**

Course	Code	Semester	I	II	III	IV	V	VI
Principles of Microeconomics	1100	S1 | S2		Developing	Developing			Developing
Principles of Macroeconomics	1101	S1 | S2		Developing	Developing			Developing
Microeconomics	1102	S1 | S2		Developing	Proficient			Proficient
Macroeconomics	1103	S1 | S2		Developing	Proficient			Proficient
Principles of Management	1200	S1 | S2	Developing		Proficient			Developing
Financial Accounting	1201	S1 | S2	Developing	Developing				
Management Accounting	1202	S1 | S2	Proficient	Developing	Developing			
Finance	1203	S1 | S2	Proficient	Developing	Proficient			
Marketing	1204	S1 | S2	Proficient		Proficient	Proficient		
Organizational Behavior	1206	S1 | S2	Proficient		Proficient			Proficient
Strategy	1207	S1 | S2	Proficient		Expert			
Global Business Environment	1212	S1 | S2	Proficient		Expert			Proficient
Business Seminar	1213	S1 | S2			Proficient	Proficient		Proficient
Calculus I	1301	S1 | S2		Developing			Developing	
Calculus II	1302	S1 | S2		Proficient			Developing	
Linear Algebra	1303	S1 | S2		Proficient			Developing	
Data Analysis and Probability	1304	S1 | S2		Expert			Proficient	
Statistics for Economics and Management	1305	S1 | S2		Expert	Expert		Proficient	
Law in Economics and Management	1405	S1 | S2	Proficient	Proficient	Proficient			
Introduction to Modern and Contemporary History	1409	S1 | S2			Developing		Proficient	Proficient
Communication, Leadership and Ethics	1458	S1 | S2	Proficient			Expert		Expert
Managing Impactful Projects	1459	S1 | S2			Expert	Expert		Expert

Appendix 3.A

Table 73: Learning Outcomes and Program Objectives for **MSc in Economics**

	I. Has knowledge of national and international economic context	II. Is able to use quantitative and technical skills for analyzing economic issues	III. Understands the key theories and practices in core areas of economic science and is able to them to actual situations	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. Possess knowledge and capacity for understanding at a level that builds upon and enriches that acquired at Undergraduate level, show evidence that they have applied their developed knowledge in an original format, frequently in the context of a research project.	X	X	X			X
2 .Ability to apply their knowledge and capacity to comprehend and resolve problems in new and unfamiliar situations, in broader contexts, beyond those directly related to their area of study.		X		X	X	X
3. Capacity to integrate knowledge, deal with complex questions, develop solutions or emit judgments in situations where there is limited or incomplete information. An awareness of the ethical and social implications and responsibilities that result from these solutions and judgments or that condition them.	X		X		X	X
4. Communicate conclusions, and the knowledge and reasoning underlying them in a clear and unambiguous fashion.		X		X		

	I. Has knowledge of national and international economic context	II. Is able to use quantitative and technical skills for analyzing economic issues	III. Understands the key theories and practices in core areas of economic science and is able to them to actual situations	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
5. Competencies that allow for a life-long learning experience in a fundamentally self-motivated and autonomous manner.				X	X	

Appendix 3.B

Table 74: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc in Economics**

Course	Code	Semester	I	II	III	IV	V	VI
Macroeconomic Analysis	2174	S1	Expert	Expert	Expert		Expert	Expert
Microeconomic Analysis	2188	S1	Expert	Expert	Expert	Expert	Expert	
Econometrics	2175	S1		Expert	Expert		Expert	
Macroeconometrics	2165	S2	Expert	Expert	Proficient	Proficient	Expert	Proficient
Microeconometrics	2168	S2	Expert	Expert	Proficient	Proficient	Expert	
Mastering Your Career	2578	A				Expert	Expert	

Appendix 4.A

Table 75: Learning Outcomes and Program Objectives for **MSc in Management**

	I. Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	II. Has a strategic understanding of the business environment	III. Is able to apply analytical skills to real world business problems	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. Possess knowledge and capacity for understanding at a level that builds upon and enriches that acquired at Undergraduate level.	X	X				X
2. Show evidence that they have applied their developed knowledge in an original format, frequently in the context of a research project.	X				X	X
3. Ability to apply their knowledge and capacity to comprehend and resolve problems in new and unfamiliar situations, in broader contexts, beyond those directly related to their area of study.	X	X			X	X
4. Capacity to integrate knowledge, deal with complex questions, develop solutions or emit judgments in situations where there is limited or incomplete information. An awareness of the ethical and social implications and responsibilities that result from these solutions and judgments or that condition them.	X	X				X
5. Communicate conclusions, and the knowledge and reasoning underlying them in a clear and unambiguous fashion.			X	X		

	I. Has a deep knowledge of management knowledge areas, including finance, strategy, organizational behavior and marketing	II. Has a strategic understanding of the business environment	III. Is able to apply analytical skills to real world business problems	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
6. Competencies that allow for a life-long learning experience in a fundamentally selfmotivated and autonomous manner.	X				X	

Appendix 4.B

Table 76: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc in Management**

Course	Code	Semester	I	II	III	IV	V	VI
Advanced Topics in Human Resources Management	2463	T2	Expert			Proficient	Proficient	Expert
Financial Management	2414	S1	Proficient	Proficient	Proficient	Proficient	Proficient	
Human Resources Management	2336	T1 | T2	Proficient			Proficient	Proficient	Expert
Marketing Management	2431	S1	Proficient	Proficient	Proficient	Proficient	Proficient	
Statistics II	2434	T1 | T3			Proficient		Proficient	
Statistics III	2435	T1 |T3			Proficient		Proficient	
Strategy	2584	S1 | S2	Proficient	Proficient	Proficient	Proficient	Proficient	
Mastering Your Career	2578	A				Expert	Expert	
Advanced Strategy	2459	S1	Expert	Expert	Expert	Proficient	Proficient	
Advanced Marketing Management	2430	S1	Expert	Expert	Expert	Proficient	Proficient	
Advanced Financial Management	2581	S1	Expert	Expert	Expert	Proficient	Proficient	

Appendix 5.A

Table 77: Learning Outcomes and Program Objectives for **MSc in Finance**

	I. Is able to apply finance concepts and tools to real world problems	II. Has a strategic understanding of the business environment	III. Is able to apply analytical skills to real world business problems	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. Students should acquire critical thinking skills and the ability to pursue individual and autonomous work		X			X	
2. Students should develop interpersonal, teamwork and communication skills. In particular, they should be able to interact and communicate with people with different backgrounds and areas of expertise.			X	X	X	
3. Students should acquire a solid theoretical background in Finance and the capacity to apply this knowledge to approach new issues and to solve problems	X	X	X			X
4. Students will learn how to use sophisticated quantitative tools and advanced technologies in the analysis and resolution of financial problems, in complex environments and under incomplete information	X		X		X	X

Appendix 5.B

Table 78: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc in Finance**

Course	Code	Semester	I	II	III	IV	V	VI
Corporate Finance	2253	S1	Proficient	Expert	Expert	Developing	Expert	Expert
Empirical Methods for Finance	2269	T1	Proficient	Developing	Proficient	Proficient	Expert	
Financial Modeling	2270	T1	Proficient	Developing	Proficient	Proficient	Proficient	
Investments	2229	S1	Expert	Proficient	Expert	Proficient	Expert	Expert
Mastering Your Career	2578	A				Expert	Expert	

Appendix 6.A

Table 79: Learning Outcomes and Program Objectives for **MSc Business Analytics**

	I. Leads complex projects in data driven organizations, leveraging data in an ethical way, for decision making processes	II. Has a strategic understanding of the business environment	III. Deploys technical tools and frameworks, for manipulation, curation, analysis and visualization of data, transforming hard-data in to decision making information	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. To understand how to design and manage data-driven organizations (organizational)	X		X		X	X
2. To learn how to lead projects and interdisciplinary teams to solve complex problems and take and implement complex decisions leveraging data (team, leadership);	X	X				X
3. To understand/deploy the available technical tools for curation and manipulation of data and the prospects for their development (technical);			X			
4. To learn how to transform hard data into storytelling and frameworks that improve human decisions and inspire commitment (communication, leadership and implementation);		X	X			X
5. To be aware of the limitations of data-driven decisions and the role of human cognitive systems and the ethical and legal constraints (critical thinking).	X			X	X	X

Appendix 6.B

Table 80: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc Business Analytics**

Course	Code	Semester	I	II	III	IV	V	VI
Modeling Business Decisions	2346	T2	Expert	Expert	Expert		Proficient	
Machine Learning	2487	S2	Expert		Expert		Proficient	
Data Curation	2489	T1	Proficient	Proficient	Proficient			
Data Visualization for Business Analytics	2609	T2	Proficient		Expert	Proficient		
Advanced Data Analysis	2597	S1	Proficient	Expert	Expert		Proficient	
Data Ecosystems and Governance in Organizations	2606	T1	Developing	Expert			Proficient	Expert
Digital Markets	2607	T2		Proficient		Proficient	Proficient	Proficient
Mastering your Career	2578	A				Expert	Expert	

Appendix 7.A

Table 81: Learning Outcomes and Program Objectives for **MSc Impact Entrepreneurship & Innovation**

	I. Identifies a business opportunities, develops a business plan to take advantage of it in an ethical way, identifying relevant KPIs that will guide it's development	II. Has a strategic understanding of the business environment	III. Learns from failure in entrepreneurial projects, is conscious of the interactive nature of continuous improvement process in entrepreneurship	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. to teach students how to identify impactful business ideas;	X	X		X	X	X
2. to enable students to develop new business models that respond to market needs and challenges	X	X	X	X	X	X
3. to promote experimental and experiential learning in the implementation of new impact entrepreneurship projects, based on an integrated process of analysis and decision making.			X		X	

Appendix 7.B

Table 82: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc Impact Entrepreneurship & Innovation**

Course	Code	Semester	I	II	III	IV	V	VI
Applied Research Methods	2624	T3	Proficient				Expert	
Data Science and Innovation for Impact	2625	S2	Proficient	Proficient		Expert	Expert	Expert
Entrepreneurial Journey	2626	S1	Proficient		Proficient	Proficient	Proficient	Proficient
Entrepreneurial Project - Start up Mastery	2627	S2	Expert	Proficient	Expert	Expert		
Entrepreneurship with Impact	2628	S1	Proficient	Proficient		Expert		Expert
Metrics that Matter	2629	T2	Expert				Expert	Expert
New Venture Management	2631	T4	Expert	Expert	Expert			
Opportunity Identification	2632	T1	Developing	Developing	Proficient		Expert	
Mastering your Career	2578	A				Expert	Expert	

Appendix 8.A

Table 83: Learning Outcomes and Program Objectives for **MSc International Development and Public Policy**

	I. Understands the key theories and practices in core areas of development and public policy	II. Has a broad understanding of the institutional framework, their constraints and how they were shaped by the various economic theories	III. Is able to research, collect and analyze information, in order to develop a critical viewpoint and make decisions	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. understand the fundamentals of Inferential Statistics and how sample information can be used to help in the decision process.			X	X	X	
2. gain a broad knowledge of the development of international institutions after WWII and their adaptation to the end of the Cold War, along with the circumstances and constraints influencing them.		X			X	X
3. understand the theories that explain economic development, especially neo-realism and neo-liberalism.	X	X				X
4. To understand similarities and differences in the development of international institutions and the post WWII utilization of international institutions to spread of liberalism.		X		X		
5. To develop students' ability to research, present and sustain a critical viewpoint.	X		X		X	X

Appendix 8.B

Table 84: Mapping of Course Proficiency Levels to Learning Outcomes for **MSc International Development and Public Policy**

Course	Code	Semester	I	II	III	IV	V	VI
Developing Economics I	2738	T2	Expert	Proficient	Developing	Proficient	Proficient	Proficient
Developing Economics II	2739	T3	Expert	Expert	Developing	Proficient	Expert	Expert
Management	2750	T1		Developing			Proficient	Proficient
Markets Incentives and Behavior	2741	T1	Proficient				Proficient	Developing
Policy Analysis Exercise	2742	A	Expert	Proficient	Proficient	Proficient	Expert	Expert
Policy Appraisal	2743	T2	Proficient		Expert	Proficient	Proficient	Developing
Public Policy I	2746	T2	Expert	Developing		Proficient	Expert	Proficient
Public Policy II	2747	T3	Expert	Expert		Proficient	Expert	Expert
Statistics for Policy Action	2748	T1			Expert		Developing	
International Relations and Organizations	2740	T1		Expert	Proficient	Proficient	Proficient	Proficient
Policy Evaluation for Public Policy	2744	T3	Expert	Proficient	Proficient		Expert	
Mastering your Career	2578	A				Expert	Expert	

Appendix 9.A

Table 85: Learning Outcomes and Program Objectives for **PhD Economics and Finance**

	I. Is able to apply research concepts and tools	II. Is intellectually independent, and is able to explore key questions in the field of study	III. Is able autonomously structure and develop meaningful and original research projects	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. training highly qualified independent researchers for positions in international academia and research institutions, as well as for top positions in governmental organizations, multilateral organizations, and economic/policy think tanks.		X		X	X	X
2. Endowing the candidates with the state-of-the-art of both theoretical and empirical tools that allow them do advance the frontier of research and provide evidence-based policy recommendations	X		X	X		
3. Doctoral graduates are up to date with the most recent advances in their field of knowledge, get exposed to research from the very early stages and pursue an internationalization track.		X	X		X	X

Appendix 9.B

Table 86: Mapping of Course Proficiency Levels to Learning Outcomes for **PhD Economics and Finance**

Course	Code	Semester	I	II	III	IV	V	VI
Macroeconomics I	6103	S1	Expert	Expert	Expert	Expert	Expert	
Macroeconomics II	6104	S2	Expert	Expert	Expert	Expert	Expert	
Mathematics	6301	S1	Proficient	Proficient	Proficient	Proficient	Expert	
Microeconomics I	6101	S1	Expert	Expert	Expert	Expert	Expert	
Microeconomics II	6102	T3	Expert	Expert	Expert	Expert	Expert	
Research Methods	6302	S2	Expert		Expert	Expert	Expert	
Advanced Econometrics	6303	S1	Proficient	Proficient				
Econometrics I	6306	S1	Expert	Expert	Expert	Expert	Expert	
Econometrics II	6307	S2	Expert	Expert	Expert	Expert	Expert	
Advanced Topics in Economics	6106	T2|T3|T4						Expert

Appendix 10.A

Table 87: Learning Outcomes and Program Objectives for **PhD Management**

	I. Is able to apply research concepts and tools	II. Is intellectually independent, and is able to explore key questions in the field of management	III. Is able autonomously structure and develop meaningful and original research projects	IV. Has effective interpersonal and communication skills, including the ability to pursue productive teamwork	V. Has analytical, critical thinking and problem solving skills that allow for a life-long learning experience in an autonomous manner	VI. Has a holistic understanding of sustainable business and economic models, applying ethical, social, and environmental values to exert a positive and transformative influence within projects and organizations
1. Graduates should be able to critically apply theories and methodologies in order to identify and explore key questions, issues, and problems in management and develop meaningful and original research for the discipline and/or context in which it was developed	X	X	X			X
2. should become intellectually independent and be able to autonomously develop their own projects within their specific research stream. This should enable them to submit applications, as independent researchers, to national (e.g., FCT) and international (e.g., EU) funding agencies		X	X	X	X	X
3. should demonstrate mastery of several parallel skills, namely problem solving, information management, collaboration and teamwork, oral and written communication, and other skills that are transferable for a career in higher education and other areas. These learning outcomes are grounded in a strong emphasis on ethical standards in research and management practice.	X			X	X	

Appendix 10.B

Table 88: Mapping of Course Proficiency Levels to Learning Outcomes for **PhD Management**

Course	Code	Semester	I	II	III	IV	V	VI
Organizational Theory	6201	S1	Expert	Expert		Expert	Expert	Expert
Statistics I	6304	T3	Proficient	Proficient			Proficient	
Statistics II	6305	T4	Expert	Expert		Proficient	Expert	
Exemplary Research	6202	T2	Expert	Proficient	Proficient		Expert	
Hot Topics in Exemplary Research	6203	T4	Expert	Expert	Expert	Expert		Expert
Qualitative Methods	6206	T4		Expert	Expert		Expert	Proficient
Hot Topics in Qualitative Methods	6204	T4		Expert	Expert	Proficient		Proficient
Social Behavior	6207	T1	Proficient					Expert
Hot Topics in Quantitative Methods	6205	T4		Expert	Expert	Expert		Proficient
Design of PhD project	6117		Proficient		Expert			Proficient
Discussion of the PhD project	6208					Expert	Expert	
Research Seminars	6209					Expert		