



COMILLAS

UNIVERSIDAD PONTIFICIA

ICAI

ICADE

CIHS

Syllabus
2026 - 2027

FICHA TÉCNICA DE LA ASIGNATURA

Datos de la asignatura	
Subject name	Medición de la Sostenibilidad/ Measuring Sustainability
Subject code	E000014033
Main program	Bachelor's Degree in Business Analytics
Involved programs	Grado en Análisis de Negocios/Bachelor in Business Analytics [Third year]
Level	Reglada Grado Europeo
Quarter	Semestral
Credits	6,0 ECTS
Type	Obligatoria (Grado)
Department	Departamento de Gestión Empresarial
Coordinator	Estela Díaz & Amparo Merino
Course overview	Sustainability challenges are among the most significant sources of risk of our time. Addressing them requires rethinking business models as well as the concepts of economic prosperity, equality, public regulation, and international relations. In this context, sustainability measurement is essential for assessing and comparing the sustainability performance of organisations and regions, although it raises important questions regarding reliability, legitimacy, and transparency. This course critically examines the main frameworks, indicators, and metrics used to assess and disclose sustainability performance. It also places particular emphasis on the metrics associated with the Environmental, Social, and Governance (ESG) pillars, as well as on the different forms of sustainable investing based on ESG criteria.

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DATOS ESPECÍFICOS DE LA ASIGNATURA

Contextualización de la asignatura
Aportación al perfil profesional de la titulación
This course enhances the Business Analytics degree by equipping students with a critical lens on how measurement shapes organisational strategy and societal outcomes. It expands students' analytical toolkit to encompass sustainability frameworks, ESG metrics, and regulatory disclosure systems. By providing not only frameworks but also discussing their underlying logics and envisioning diverse possibilities for sustainability measurement, the course enriches students' capacity to turn analytics into informed and responsible decision-making.
Prerrequisitos
No prerequisites are needed.

Competencias - Objetivos	
Competencias	
Resultados de Aprendizaje	
CM5	Resultados del proceso de Formación y de Aprendizaje. CM5. Discierne, elabora y transmite ideas y soluciones que respondan a los problemas ecosociales desde una perspectiva ética, alienadas con los Objetivos de Desarrollo Sostenible.
RA1	1. Medida de la Sostenibilidad/ Measurement Sustainability/ (6 ECTS) RA1. El estudiante es capaz de identificar y comprender los principales actores y factores, así como los marcos políticos y las instituciones que intervienen en la medición de la sostenibilidad



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RA2	1. Medida de la Sostenibilidad/ Measurement Sustainability/ (6 ECTS). RA2. El estudiante es capaz de evaluar e interpretar los principales métodos de medición de la sostenibilidad y comprender las implicaciones de la heterogeneidad existente en los sistemas de medición.
RA3	1. Medida de la Sostenibilidad/ Measurement Sustainability/ (6 ECTS). RA3. El estudiante es capaz de seleccionar datos e indicadores relevantes y evaluar el impacto financiero y el riesgo climático asociado a la sostenibilidad desde una perspectiva ASG.
RA 1	2. Ética en la Era Digital/ Ethics in the Digital Age (3 ECTS). RA 1. El estudiante es capaz de conectar la Ética y la RSE con elementos tales como la estrategia, el Marketing, la Dirección Financiera, la Gestión de Personas en la Organización, conociendo los principales problemas éticos y de responsabilidad social, y argumentando racionalmente sus propias opiniones y posturas.
RA 2	2. Ética en la Era Digital/ Ethics in the Digital Age (3 ECTS). RA 2. El estudiante es capaz de aplicar la metodología deliberativa de decisión ética para abordar el impacto personal, social y medioambiental de su actividad empresarial, tanto a escala local como global.
RA 3	2. Ética en la Era Digital/ Ethics in the Digital Age (3 ECTS). RA 3. El estudiante es capaz de reconocer los dilemas éticos esenciales relacionados con la inteligencia artificial y la revolución 4.0 en especial aquellos relacionados con los principios de beneficencia, autonomía, justicia y responsabilidad.
RA1	3. Medición y Gestión del Impacto Social/ Societal Impact Management (3 ECTS). RA1. Identificar los diferentes grupos de interés que se ven impactados por la actividad de la organización y de analizar su materialidad.
RA2	3. Medición y Gestión del Impacto Social/ Societal Impact Management (3 ECTS). RA2. Conocer los fundamentos de la Teoría del Cambio.
RA3	3. Medición y Gestión del Impacto Social/ Societal Impact Management (3 ECTS). RA3. Saber calcular el valor social aportado por un proyecto/programa/organización concreta.

BLOQUES TEMÁTICOS Y CONTENIDOS

Contenidos – Bloques Temáticos

Module I. Foundations of sustainability

- Sustainability as a complex field
- Economic roots of ecosocial challenges
- Measuring sustainability and the politics of quantification

Module II. Frameworks and tools for business and finance

- Global and regional standards
- Impact metrics and analytical tools
- Sustainable finance



METODOLOGÍA DOCENTE

Aspectos metodológicos generales de la asignatura

Metodología Presencial: Actividades

AF1. Lectures. Each lecture will combine theoretical exposition with debate and/or discussion of the corresponding topic. This requires that students come to class prepared to reflect on and engage with the assigned content and readings, as indicated in the bibliographic materials for each session (as outlined in the course schedule).

AF2. Collaborative in-class activities. Designed to enable the practical application of the theoretical concepts and analytical models covered in class. They support the development of students' capacity to understand the complexity of measuring and reporting sustainability. During the sessions, the instructors will accompany and support student groups.

AF3. Individual in-class activities. Active participation in the classroom is an excellent tool for enhancing learning, not only for those who contribute directly but also for all who are present. A productive learning environment requires the active involvement of everyone in the classroom.

Metodología No presencial: Actividades

AF4. Individual Study. Students are expected to engage deeply with the course content both before and after class. This includes individual reading of texts and other materials related to the subject. Students will have access to documentation, session materials, and practical activities in Moodle.

AF5. Academic Tutoring. Tutoring is a support tool made available by the instructors to enhance the learning process. While students are encouraged to utilise this resource, doing so is entirely voluntary and will not impact their final grade in the course. The teaching team will be available during designated hours, dates, and locations to assist students with any questions or difficulties related to course content, the development of assignments, or any other matter directly or indirectly related to the course.

AF6. Research activities. Students will carry out activities to complement in-class work related to data collection, data analysis, reporting and discussions.

RESUMEN HORAS DE TRABAJO DEL ALUMNO

CLASSROOM HOURS		
Lecciones de carácter expositivo	Ejercicios y resolución de casos y de problemas	Otras actividades, seminarios, talleres, simulaciones, dinámicas de grupo, etc
15.00	30.00	15.00
NON-PRESENTIAL HOURS		
Estudio y lectura organizada	Trabajos monográficos y de investigación, individuales o colectivos	
50.00	40.00	
ECTS CREDITS: 6,0 (150,00 hours)		



EVALUACIÓN Y CRITERIOS DE CALIFICACIÓN

The use of AI to produce full assignments or substantial parts thereof, without proper citation of the source or tool used, or without explicit permission in the assignment instructions, will be considered plagiarism and therefore subject to the University's General Regulations.

Evaluation activities	Evaluation criteria	Weight
Individual final examination: The examination will consist of both theoretical and practical components. To ensure fairness and academic integrity, the use of electronic devices and any reference materials is not permitted during the examination. Students must complete the examination using only a pen and the printed examination paper provided by the teaching staff.	• Demonstrates independent and critical thinking in relation to different concepts, theories, and tools. • Understands and applies different theoretical approaches, models, and tools to solve practical problems. • Expresses ideas in writing accurately, using correct grammar and spelling, and in a clear, coherent, well-structured, and persuasive manner.	50 %
Collaborative in-class activities: These activities are designed to facilitate the practical application of the concepts, models, and analytical tools covered in the course on sustainability measurement and reporting, while fostering critical reflection. The use of artificial intelligence (AI) tools in the preparation of assignments is permitted in accordance with the guidelines established by the teaching team.	• Identifies the main challenges and issues related to sustainability measurement. • Analyses and evaluates sustainability-related issues using appropriate analytical frameworks. • Demonstrates abstract reasoning and independent critical judgment. • Uses diverse, relevant, and reliable sources of information to support arguments. • Assesses the ethical and social implications of the issues under study. • Develops well-reasoned analyses, conclusions, and recommendations supported by sound and robust arguments.	30 %
Continuous assessment through readings, class participation, and other learning activities. A productive and enriching learning environment requires students to participate actively and engage meaningfully in all the learning activities planned by the teaching team.	• Develops relevant, well-founded, and high-quality reflections and arguments related to the course content. • Communicates ideas clearly, coherently, and in a well-structured manner, adapting arguments to the context of the discussion. • Participates actively in learning activities, demonstrating openness to dialogue, the exchange of ideas, and the collaborative construction of knowledge. • Demonstrates critical thinking, creativity, and originality in the development and discussion of ideas.	20 %



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REGULAR EXAMINATION PERIOD

To pass the course during the regular examination period, students must successfully pass all the assessment activities specified in this guide. Group assignments that form part of the course methodology may be subject to peer evaluation by team members, based on a model provided by the teaching team and made available on Moodle.

RESIT EXAMINATION PERIOD

1. Students who do not pass the final examination during the ordinary assessment period are required to take the resit examination. The resit exam will assess the entire course syllabus. Once the examination has been passed, the standard course assessment weightings will be applied to determine the final grade.

2. Students who fail to meet the requirements of any of the other assessment components of the course must also complete the resit process. In such cases, they will be required to undertake additional coursework or practical assignments, as determined by the instructor, aligned with the specific assessment component(s) that were not successfully completed.

It is the responsibility of students to contact their professor to confirm the format of the resit examination and/or the additional assessment activities required in their particular case.

STUDENTS WITH AN ATTENDANCE WAIVER

Students who have been granted an attendance waiver are required to complete only the "final exam" under the conditions established in this syllabus. Their final grade for the course will be based 100% on the final exam score. These students must contact the teaching team to confirm the exam format and any additional activities the instructor deems appropriate for their particular situation.

GENERAL RULES

General Guidelines for Participating in Course Activities. To ensure the effective development of classroom sessions, the teaching team values an active attitude of listening and participation from students, fostering meaningful engagement with the reflections and discussions around the course content. In this regard, **the use of electronic devices will be considered inappropriate unless explicitly allowed during specific moments of the class.**

Students are also reminded that **plagiarism will be penalised** in accordance with the University's General Regulations, Article 168.2.e: "any actions aimed at falsifying or defrauding the systems for evaluating academic performance." Plagiarism will be understood to occur in the following cases:

- When bibliographic references are not included and the sources consulted in preparing the work are not properly cited (regardless of the source, it must always be cited).
- When there is no clear distinction between original information and the student's own elaboration.
- When words are changed from the original source without a genuine reformulation of the content.

Regarding the use of generative artificial intelligence (AI) tools, **improper use will be considered a serious academic offense under the same regulation** (Article 168.2.e). Any fraudulent or undeclared use of AI tools in unauthorized tasks—especially in final submissions or individual assessments—will be treated as a serious breach of academic integrity. Consequences may include temporary suspension of up to three months, disqualification from sitting for the next examination session, and a failing grade (0) in the affected subject, along with prohibition from retaking the course in the following session. In the case of group work, it is expressly stated that any improper use of AI tools will result in sanctions applied to all members of the group, as per Article 168.2.e of the University's General Regulations.



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Specifically, in the Measuring Sustainability course, **Level 2 of the AI Assessment Scale** (Perkins, Furze, Roe, & MacVaugh, 2024), corresponding to the AI Planning category, will apply. Under this level, the use of artificial intelligence tools is allowed only for information gathering and for designing presentations to communicate the results of coursework. For any assignment in which the use of AI is allowed, students must clearly and comprehensively document:

- The name of the AI tool used (e.g., ChatGPT, Elicit, Scholar AI);
- The prompt or query submitted to the tool;
- The section of the assignment in which the AI tool was used;
- How the AI-generated content was revised, reformulated, or further developed by the student.

The professor may also require the submission of draft versions of written work and/or conduct oral defenses related to the preparation of assignments in order to verify the authenticity of the submitted work and to ensure that students have genuinely engaged with and understood the learning process.

IMPORTANT: Students are not allowed to include AI-generated text directly in any final assessed submission. AI tools may be used to support the development process, but they must not replace students' own academic work and intellectual contribution. This approach is intended to ensure that students develop not only the technical skills required to use AI tools effectively, but also the critical, ethical, and reflective competencies necessary for their responsible application in academic and professional contexts within the field of Strategic Management.

BIBLIOGRAFÍA Y RECURSOS

Bibliografía Básica

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Espeland, W. N., & Stevens, M. L. (2008). A sociology of quantification. *European Journal of Sociology/Archives européennes de sociologie*, 49(3), 401-436.

EU Technical Expert Group on Sustainable Finance (2020). *Taxonomy: Final report of the Technical Expert Group on Sustainable Finance*. European Commission.

Gehring, A., & Kowalski, S. (2023). Mapping Sustainability Measurement. A Review of the Approaches, Methods, and Literature. Cham: Springer Nature Switzerland.

Kothari, A., Demaria, F., & Acosta, A. (2014). Buen Vivir, degrowth and ecological Swaraj: Alternatives to sustainable development and the green economy. *Development*, 57(3), 362-375.

Harris, J. M., & Roach, B. (2016). *Environmental and natural resource economics: A contemporary approach*. Routledge. (Última edición de 2025).

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Rasche, A. (2025). The Ethics of ESG Integration: Ethical Dilemmas of Quantification, in: Gentile, V. et al. (eds). *The Ethics of ESG: Critically Assessing the Environmental, Social and Governance Movement*. Cambridge/New York: Cambridge University Press.



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Bibliografía Complementaria

Available in Moodle.