School of International Busine

Academic Year: 2025/26

80150 - Systems Thinking for Sustainability

Teaching Guide Information

Subject: Elective
Term: First term
Number of credits: 6.0
Teaching language:

Plenary session: Group 1: English

1. Basic description

Academic center: Escola Superior de Comerç Internacional

Degree / Course: International Business Programme (IBP)

Contact hours: 45

Total number of hours committed: 150

Lecturers: Silvia Ayuso (silvia.ayuso@esci.upf.edu)

Timetable: SIGMA Schedule

Office hours: by appointment

2. Presentation of the course

Complex problems of sustainable development arise from the interaction of multiple social, economic, and environmental factors. This course aims to introduce systems thinking skills to students to address complex problems of sustainability.

In the first part of the course students will learn about the basic concepts related to sustainability and the 17 Sustainable Development Goals (SDGs) of United Nations. A special emphasis will be devoted to the origin and meaning of the concept of sustainability, the context of the SDGs, its measurement and its practical implementation by different societal actors.

In the second part of the course, students will be introduced to systems thinking as a useful perspective to analyze and model complex sustainability problems and learn to identify possible leverage points for impactful change. Following an inquiry-based learning approach, students will work in small groups in a learning project and analyze an issue of their choice within one of the 17 UN Sustainable Development Goals and design a multi-stakeholder strategy to both alleviate problem symptoms and address their underlying causes and drivers.

This course requires no prerequisite knowledge of sustainable development issues.

3. Educational and learning process outcomes

At the end of the course, students should:

- Know the basic sustainability notions and concepts and distinguish between different perspectives of environmental, social and economic sustainability
- Analyze and evaluate progress towards the various, sometimes conflicting, objectives and challenges of the SDGs
- Understand the roles and responsibilities of different societal actors in the practical implementation of the SDGs
- Acquire systems thinking skills to address the complex problems of sustainability and learn to design strategies to target their underlying causes and drivers

General competences

G.I.2. Ability to relate concepts and knowledge from different areas.

G.I.4. Ability to tackle and resolve problems.

G.P.3. Serious moral and ethical sense and commitment.

G.P.4. Critical attitude.

G.P.6. Capacity to foresee events.

G.S.3. Ability to think globally.

G.A.1. Ability to apply acquired knowledge and skills.

Specific competences

E.P.12. Critical capacity that may be applied to local information contexts, knowledge or principles of a more global nature.

E.P.20. Ability to confront and understand the business culture and environment and propose real solutions to specific problems in the organisation.

E.P.21. Ability to research and use various information resources.

Working competences and assessment of learning outcomes

	G.I.2.	G.I.4.	G.P.3.	G.P.4.	G.P.6.	G.S.3.	G.A.1.	E.P.12.	E.P.20.	E.P.21.
Class participation	X		X	X						
SDG presentation	X					X				X
Deliverables 1 to 5 of learning project (in groups)		X			X		X	X	X	X
Final report + presentation of learning project (in groups)		X			X		X	X	X	X
Final exam							X	X	X	

The competences, the learning outcomes, the assessment elements and the quality of the learning process included in this Teaching Plan will not be affected if during the academic trimester the teaching model has to switch either to an hybrid model (combination of face-to-face and on-line sessions) or to a complete on-line model.

4. Contents

1. Sustainability and the SDGs

- Concept of sustainability: roots, history and definitions

- The United Nations and the Sustainable Development Goals (SDGs)
- SDG measurement: official and non-official indicators
- SDG implementation by governments, business and civil society

1. Systems thinking

- The principles of systems thinking
- Systems thinking in sustainable development
- Building causal loops diagrams
- Reviewing systems archetypes
- Interventions in systems
- Multi-stakeholder collaboration for systemic action

5. Assessment

Evaluation activities	**Weight to the final mark (%)**
Class participation	15
SDG presentation	15
Deliverables 1 to 5 of learning project (in groups)	- (use feedback to improve learning project)
Final report + presentation of learning project (in groups)	30
Final exam	40

Taking the final exam is a necessary condition to pass the subject. In case of not attending the final exam, the student will obtain the “not presented” qualification.

Total or partial copy and/or plagiarism will imply a failure in the subject with a final grade of zero points and no access to the make-up exam. According to the academic regulations specified in the Disciplinary rules for students of Universitat Pompeu Fabra, other additional sanctions may apply depending on the seriousness of the offence.

In case of divergence between the evaluation criteria established in the Learning Plan and the Teaching Guide, those established in the Learning Plan will prevail.

6. Sustainable Development Goals

SDG 1: No Poverty
SDG 2: Zero Hunger
SDG 3: Good Health and Well-being
SDG 4: Quality Education
SDG 5: Gender Equality
SDG 6: Clean Water and Sanitation
SDG 7: Affordable and Clean Energy
SDG 8: Decent Work and Economic Growth
SDG 9: Industry, Innovation and Infrastructure
SDG 10: Reduce Inequalities
SDG 11: Sustainable Cities and Communities
SDG 12: Responsible Consumption and Production

SDG 13: Climate Action
SDG 14: Life below Water
SDG 15: Life on Land
SDG 16: Peace, Justice and Strong Institutions
SDG 17: Partnerships for the Goals