
Sustainability in Logistics and operations

Professor: Rosa Colomé

Office hours: By appointment

Course Type: Elective

Credits: 3 ECTS

Term: Third

Course Description

Sustainability in Logistics and Operations is a third-term course in the MSc in Sustainability Management, at the UPF Barcelona School of Management. It is an elective course. The course develops the basic concepts, that define the sustainability of a supply chain and the importance of applying them correctly. The course offers knowledge that allows executing the main logistics processes with sustainability criteria, from demand forecasting to management of the point of sale. In the course, students are trained to understand management trends and the technologies that can be applied to a sustainable management of the Supply Chain. Students learn to build indicators that allow them to measure sustainability in a transversal and integrated way in the business. Particular attention is devoted to real cases and real applications.

Objectives (resultados de aprendizaje) and competences

At the end of the course, students should:

- Learn about the key elements in designing a sustainable supply chain.
- Identifies the technologies and strategies that are applied to logistics processes to make them more sustainable.
- Defines the key KPIs to integrate the three dimensions of sustainability: environmental, social and economic.

Learning Outcomes: RA43 and RA44.

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A list of topics include:

- The concept of sustainability applied to Supply Chain Management.
- The design of supply chains using sustainability parameters.
- Sustainability strategies in the main logistics processes:
 - demand forecast
 - Warehouse management
 - transportation management
 - Point of sale
 - E-commerce and last mile
 - Logistics packaging
- Sustainability indicators in the supply chain

Methodology

The course comprises eight 3-hour sessions, which combine theory lecturing with general debates and applied discussions on cases and exercises. The students will also engage in presentations of reports, cases, or project assignments. Activities will require both individual and group work.

The course also involves a substantial amount of autonomous work outside the classroom, combining readings that will help you to gain a deeper understanding of the material covered in the class.

Evaluation criteria

Three elements concur in the final mark:

- **Final exam (50%).** The final exam is used to assess the individual level of knowledge and understanding of each student. It will include questions covering topics from all the classes. This item counts for 50% of the final mark. To pass the exam the minimum grade is 4.
- **Group work and homework presentation (30%).** Students will apply their knowledge to different situations during the development of the homework and the group work exercise. They are expected to use the topics they learned to use during the classes.
- **Class attendance and active participation (20%).** Attendance in every session is expected and recorded using an attendance sheet. It is your responsibility to comply with this measure. Class attendance is compulsory and will be considered in your final grades; punctuality is a must. Note that unexcused absences reduce your score on the "attendance and participation" element of your final grade. Two or more unexcused absences will result in

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an automatic score of zero and, in all likelihood, a fail mark for the course as a whole.

Attended all the sessions + actively and consistently participated in the class discussions during the entire course period	20
Attended all the sessions + actively and consistently participated in most of the class discussions	15-19
No more than one unexpected absence + often participated in the class discussions	10-14
No more than one unexpected absence + participated in some class discussions	5-10
No more than one unexpected absence + limited or no participation in class discussions	1-5
Otherwise	0

Other evaluation criteria to take into consideration:

- **Retake**

Students who fail the course during the regular evaluation will be allowed ONE re-take of the examination/evaluation. Students that pass any Retake exam should get a 5 by default as a final grade for the course. If the course is again failed after the retake, students will have to register again for the course the following year.

- **No-show**

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they study the possibility of rescheduling the exam (one possibility being during the “Retake” period). In the meantime, the student will get an “incomplete”, which will be replaced by the actual grade after the final exam is taken. The “incomplete” will not be reflected on the student’s Academic Transcript.

- **Plagiarism**

Plagiarism is to use another’s work and present it as one’s own without acknowledging the sources in the correct way. All essays, reports, or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the “Honor Code,” students acknowledge that they understand the schools’ policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in an automatic expulsion from the program.

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Bio of Professor

Rosa Colomé Perales is professor of retail and logistics and academic coordinator at ESCI-UPF since 2004. At ESCI-UPF she teaches Retail and International Logistics and is the academic director of the Internship Programm of the Degree in International Business and Marketing. She has previously been a professor at the Universitat Pompeu Fabra, Universitat Oberta de Catalunya and Tecnocampus.

Rosa is a graduate in Economic and Business Sciences from the Universitat Pompeu Fabra (1995), Master in Economics from the Universitat Pompeu Fabra (1996), Master in Logistics and Supply Chain Management from Cranfield University (1999) and PhD in Business Organisation from the Universitat Pompeu Fabra (2002).

Rosa is a member of the research group RISE (Research in International Studies and Economics) and a collaborator of the UNESCO Chair in Life Cycle and Climate Change. He is editor of the economy blog 5centims.cat and a regular contributor to the media.

Reading Materials/ Bibliography/Resources

No textbook is required for this course. All the required materials will be provided. Any readings, notes, handouts, datasets, or additional course material will be available through the course website.