UAB
Universitat Autònoma de Barcelona

2022/2023

Integrated Management Models: Environment

Code: 104011
ECTS Credits: 6

Degree	Type	Year	Semester
2502501 Prevention and Integral Safety and Security	OB	3	1

Contact

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Use of Languages

Principal working language: spanish (spa)

Some groups entirely in English: No

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: No

Prerequisites

This subject has no prerequisites.

Objectives and Contextualisation

Introduction:

The environment and natural resources are a common good of all humanity, both current and future. For this reason, both the society in general and the companies in particular have to take responsibility for the impact that we cause on the environment. This principle must be extended to all organizations and especially those that, due to their activity, may have a negative impact on the environment.

At present, we have several tools for environmental management in companies, including environmental management systems (ISO 14.001, EMAS, etc.) and the ecological labeling of more respectful products and services, such as systems of responsibility and sustainable development. These tools, voluntary but of a public nature, are based on the principle of continuous improvement of environmental management.

The concept of an integrated environmental management system is intimately linked to that of environmental and quality auditing. This could be defined as 'an organizational structure, planning of activities, responsibilities, practices, procedures, processes and resources to develop, implement, carry out and keep up to date the environmental policy of a company'. Moreover, policies and the economic context are driving private and public entities to implement circular economy strategies in order to get on the loop and be innovative in the new economic paradigm, where resources, products and services will have to last much longer within the system and consumption patterns will have to be much more responsible. The subject then will introduce the basic concepts and strategies of the circular economy as a tool for environmental management and business strategy.

This subject will present the basic tools for environmental management and introduce circular economy for organizations, both public and private.

Objectives:

- Introduce general aspects about the environment and sustainable development.
- Describe the general concepts about organizational environmental management systems and products.

- Know the norm ISO 14001 and European eco-audits following the EMAS regulation.
- Apply different procedures necessary for the practical implementation of an environmental management and audit system based on specific cases.
- To introduce the concept and strategies of circular economy as a management tool for private and public companies.
- To enhance students' critical thinking skills and proactive identification of environmental aspects which may be at risk within a company.

Competences

- Be able to communicate efficiently in English, both orally and in writing.
- Carry out analyses of preventative measures in the area of security.
- Identify the resources necessary to respond to management needs for prevention and integral security.
- Know how to communicate and transmit ideas and result efficiently in a professional and non-expert environment, both orally and in writing.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Respond to problems applying knowledge to practice.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Use the capacity for analysis and synthesis to solve problems.
- Work in institutional and interprofessional networks.

Learning Outcomes

1. Analyse indicators of sustainability for academic and professional activities in the area including social, economic and environmental considerations.
2. Analyse the preventative interventions in matters of security, environment, quality and social corporate responsibility and identify the inherent risk factors.
3. Analyse the situation and identify the points that are best.
4. Be able to communicate efficiently in English, both orally and in writing.
5. Evaluate how gender stereotypes and roles affect professional practice.
6. Identify the resources necessary for managing security, the environment, quality and social corporate responsibility.
7. Identify the social, economic and environmental implications of the academic and professional activities in the field of self-knowledge.
8. Know how to communicate and transmit ideas and result efficiently in a professional and non-expert environment, both orally and in writing.
9. Propose means of evaluating projects and actions for improving sustainability.
10. Propose new methods or well-founded alternative solutions.
11. Propose viable projects and actions that promote social, economic and environmental benefits.
12. Respond to problems applying knowledge to practice.
13. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.

14. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
15. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
16. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
17. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
18. Use the capacity for analysis and synthesis to solve problems.
19. Work in institutional and interprofessional networks.

Content

Topic 1. Introduction to the environment and environmental management

Environment and sustainable development

Business and the environment

Environmental strategy in the company

Environmental management tools

Topic 2. Environmental management in the organization

Basic concepts

Motivations and advantages

Options for implementing an EMS

Actors involved

Implementation stages

Economic valuation

Item 3. Environmental product management

Introduction to environmental product management

Ecodesign

Environmental communication (tags)

Buy green

Item 4. Introduction to the circular economy as a tool for strategic business management

Introduction to the concept of circular economy

Legislative context: EU and Spain (Spain 2030 Strategy Plan, Climate Change and Energy Transition Bill, etc.)

Principles and strategies of circular economy (ecodesign, repair and maintenance, servitization, symbiosis, etc.)

Case studies applied to private and public enterprise

Methodology

The teaching methodology will combine the methodological techniques of the master classes together with the study of the case and the supervised and autonomous work by the student to improve the acquisition of knowledge and skills.

Students will prepare the topics independently, and the videoconference sessions will be dedicated to delving into the topics covered and resolving doubts. It is essential to prepare the topics before each session. In addition, a forum of doubts will be created, where the students will be able to realize the questions and comments that consider necessary on the subject.

The autonomous activities will correspond both to the personal study and to the resolution of the exercises and works proposed by the teacher. Each student will have to look for documentation of subjects related to the subject object of study and personal works of consolidation on what has exposed to class (programmed readings, individual exercises). You will also need to follow up and study different exercises and case studies.

Assessment activities will assess the knowledge and skills acquired by students, according to the criteria presented in the next section.

Tutorials with teachers will be arranged by email.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Evaluation	4	0.16	3, 8, 12, 2, 6, 7, 9, 10, 11, 17, 16, 15, 13, 14, 19, 18, 5
Master classes	12	0.48	3, 8, 10, 16, 15, 13, 14, 19
Type: Supervised			
Practical cases and discussion forums.	24	0.96	3, 8, 12, 2, 6, 10, 17, 16, 15, 13, 14, 19, 18
Type: Autonomous			
Personal stuydy and resolution of practical cases.	110	4.4	3, 8, 12, 9, 10, 11, 17, 16, 15, 13, 14, 18, 5

Assessment

Continuous Assessment Tests (PEC) (50%):

Throughout the course there will be a total of 3 continuous assessment practices, in groups of 2-3 people.

It is a requirement to obtain at least a 3.5 out of 10 of average mark of the 3 practices so that it does average with the rest of notes of the subject and therefore the note is evaluable.

Final exam (50%):

At the end of the course there will be a final exam.

It is a requirement to obtain at least a 3.5 out of 10 of the average mark of the final exam so that it averages with the rest of the marks of the subject and therefore the mark is evaluable.

Optional exercise (in English):

Once the 3 PECs have been completed, a 4th practical exercise in English will be proposed, which will be entirely voluntary for all students (and will have no effect on the final mark).

Recovery exam:

If you do not pass the subject in accordance with the criteria mentioned above, you can take a recovery test on the date scheduled in the schedule, which will be about all the contents of the program. To participate in the recovery, students must have been previously assessed in a set of activities, the weight of which is equivalent to a minimum of two thirds of the total grade of the subject. However, the grade that will appear in the student's file will be a maximum of 5-Passed.

Students who, due to attendance at meetings of the collegiate bodies of university representation or other reasons provided for in the EPSI evaluation regulations, are unable to attend the scheduled evaluation activities, have the right to a different day and time is set for their completion.

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student commits any irregularity that may lead to a significant variation in the grade of an assessment act. , this assessment act will be graded with a 0, regardless of the disciplinary process that may be instructed, in case there are several irregularities in the assessment acts of the same subject, the final grade of this subject will be 0 ".

The tests / exams may be written and / or oral at the discretion of the teacher.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Practicum.	50%	0	0	1, 3, 4, 8, 12, 2, 6, 7, 9, 10, 11, 17, 16, 15, 13, 14, 19, 18, 5
Written and/or oral tests to evaluate the knowledge acquired by the student.	50%	0	0	3, 4, 8, 12, 7, 9, 10, 17, 16, 15, 13, 14, 18, 5

Bibliography

AENOR EDICIONES (2006) Gestión Ambiental. Manual de normas UNE. Serie Medio Ambiente. Madrid

Cascio J (1996) ISO 14000 guide : the new international environmental management standards. McGraw-Hill. New York.

Durán G (2007) Empresa y medio ambiente. Políticas de gestión ambiental. Ediciones Pirámide. Madrid.

Generalitat de Catalunya (1997). Guia per a la implantació i el desenvolupament d'un sistema de gestió ambiental. Barcelona.

Generalitat de Catalunya (2000). Guia pràctica per a la implantació d'un sistema de gestió ambiental. Manuals d'ecogestió 2. Barcelona.

Hillary R (2002). ISO 14001: Experiencias y casos prácticos. AENOR: Madrid.

Lamprecht, JL (1997) ISO 14000. Directrices para la Implantación de un Sistema de Gestión Medioambiental. AENOR. Madrid.

Kirchherr J. et al. 2017. Conceptualizing the circular economy: An analysis of 114 definitions. Resources, Conservation and Recycling 127, 221-232. http://dx.doi.org/10.1016/j.resconrec.2017.09.005.

Kowszyk, Y., & Maher, R. (2018). Estudios de caso sobre modelos de Economía Circular e integración de los Objetivos de Desarrollo Sostenible en estrategias empresariales en la UE y ALC. Hamburgo: Fundación EU-LAC.

Morató, J., Tollin, N., Jiménez, L., Villanueva, B., Plà, M., Betancourth, C., ... & Pérez, E. (2017). Situación y evolución de la economía circular en España. Fundación COTEC para la Innovación: Madrid, Spain.

Gema Durán Romero, Empresa y Medio ambiente, políticas de gestión ambiental, Ed. Pirámide. ISBN: 878-84-368-2012-4.

Marta Arévalo Contreras y Alfonso Ortega Lorca, Gestión Ambiental, ed.Síntesis, ISBN 978-84-9171-040-0.

Lozano Cutanda, Blanca , Juan Cruz Alli-Turrillas, " Administración y legislación ambiental", Ed. Dykinson(la nueva edición)

Enllaços web:

AENOR

www.aenor.es

Empresa i Avaluació Ambiental. Departament de Territori i Sostenibilitat. Generalitat de Catalunya. http://www20.gencat.cat/portal/site/dmah/menuitem.685af0bd03466a424e9cac3bb0c0e1a0/?vgnextoid=4977531

Environmental Management Systems. US Environment Protection Agency

http://www.epa.gov/ems/

EU Eco-Management and Audit Scheme (EMAS)

http://ec.europa.eu/environment/emas/index_en.htm

Instituto Internacional de Desarrollo Sostenible: la empresa y el desarrollo sostenible

http://www.iisd.org/business

Integrated Product Policy (IPP)

http://europa.eu/legislation_summaries/consumers/consumer_safety/l28011_en.htm

International Organisation for Standardization (ISO)

http://www.iso.org

Medi Ambient. Universitat Autònoma de Barcelona (UAB)

http://www.uab.cat/mediambient/

Sèrie ISO 14000 i Sistemes de Gestió Ambiental: una base per la sostenibilitat

http://www.trst.com

2020 EU Action Plan for Circular Economy:

https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388-11ea-b735-01aa75ed71a1.0017.02/DOC_1&f

https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388-11ea-b735-01aa75ed71a1.0017.02/DOC_2&f

Ellen MacArthur Foundation: https://www.ellenmacarthurfoundation.org

Software

This subject will only use the basic software of the Office 365 package.