Universitat Autònoma de Barcelona

**2020/2021**

# Integrated Management Models: Environment

Code: 104011
ECTS Credits: 6

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

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

## 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 does not prerequisite.

## Objectives and Contextualisation

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 privat.

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.
- Respond to problems applying knowledge to practice.
- Use the capacity for analysis and synthesis to solve problems.
- Work in institutional and interprofessional networks.

## Learning Outcomes

1. Analyse the preventative interventions in matters of security, environment, quality and social corporate responsibility and identify the inherent risk factors.
2. Be able to communicate efficiently in English, both orally and in writing.
3. Identify the infrastructure, technology and resources necessary to respond to operations in prevention and integral security.
4. Identify the resources necessary for managing security, the environment, quality and social corporate responsibility.
5. Know how to communicate and transmit ideas and result efficiently in a professional and non-expert environment, both orally and in writing.
6. Respond to problems applying knowledge to practice.
7. Use the capacity for analysis and synthesis to solve problems.
8. Work in institutional and interprofessional networks.

## Content

Topic 1. Introduction to the environment and environmental management

Environment and sustainable development

Company and environment

Environmental strategy in the company

Environmental management instruments

Topic 2. Environmental management at the organization level

Basics

Motivations and advantages

Options to implement an SGA

Actors involved

Implementation stages

Economic evaluation

Topic 3. Product environmental management

Introduction

Ecodesign

Environmental communication (eco-labels)

Green buy

Topic 4. Introduction to the circular economy as a strategic management tool for businesses

Introduction to the concept of the circular economy

Legislative context: EU, Spain and Catalonia (Spain 2030 strategy plan, climate change and energy transition plans, etc.)

Principles and strategies of the circular economy (servitization, resource - residue, producers extended responsibility, repair, maintenance, ecodesign, etc.)

Case studies applied to private and public companies

## Methodology

The teaching methodology will combine the individual study from the Manual with the tutoring of the teaching staf
The students will prepare the syllabus autonomously and the videoconfe
A forum of doubts will also be created where students can ask the questi

The autonomous activities correspond to both the personal study and the resolution of the exercises and work proposed by the teacher. Each student should investigate documentation of topics related to the subject matter of study and personal consolidation work on what is exposed in class (scheduled readings, individual exercises). In addition, you should monitor and study different exercises and case studies.

The evaluation activities will evaluate the knowledge and competences acquired by the students, according to the criteria presented in the following section.

Tutorials with the faculty will be arranged by email.

## Activities

| Title | Hours | ECTS | Learning Outcomes |
|---|---|---|---|
| Type: Directed | | | |

| | | |
|---|---|---|
| theoretical classes | 6 | 0.24 |
| Type: Supervised | | |
| Discussion forums, resolution of practical cases and tests. Tutorials and videoconference sessions | 24 | 0.96 |
| Type: Autonomous | | |
| Resolution of practical cases. Realization of works. Personal study. | 120 | 4.8 |

## Assessment

*Delivery of Continuous Evaluation Tests (PEC) (40%)*

Throughout the course a total of 2 continuous assessment practices will
It is a requirement to obtain at least a 3.5 out of 10 of the average mark o
Delivery of exercises and problems (10%)
Final Test of Continuous Evaluation (50%)
It is a requirement to obtain at least a 3.5 out of 10 of the grade of the tes
In case of not passing the subject according to the aforementioned criteri
To participate in the recovery the students must have been previously ev
Students who need to change an evaluation date must submit the reques
Without prejudice to other disciplinary measures deemed appropriate, an
The tests / exams may be written and / or oral at the discretion of the tea

## Assessment Activities

| Title | Weighting | Hours | ECTS | Learning Outcomes |
|---|---|---|---|---|
| Follow-up exercises on environmental news. | 10% | 0 | 0 | 2, 8 |
| Practicum 1. PEC1 | 20% | 0 | 0 | 6, 7 |
| Praticum 2. PEC 2 | 20% | 0 | 0 | 5 |
| Written and / or oral tests that allow to value the knowledge acquired by the student. | 40% | 0 | 0 | 1, 4, 3 |

## Bibliography

## Bibliografia

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