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 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.
- 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 individual study from the Manual with tutoring of the teaching staff.

Students will prepare the syllabus autonomously and the videoconference sessions will be devoted to deepening on the topics discussed, as well as resolving possible doubts. Therefore it is essential to prepare the topics before each session.

In addition, a forum of doubts will also be created where students will be able to ask questions and clarifications that they consider necessary about the subject.

Autonomous activities correspond to both personal study and resolution of the exercises and assignments proposed by the teacher. Each student must investigate documentation of topics related to the subject under study and personal consolidation work on what is exposed in class (scheduled readings, individual exercises). In addition, students must follow up and study different exercises and case studies.

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

Tutorials with the teaching staff 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			
Theoretical classes	6	0.24	

Evaluation	4	0.16

Type: Supervised

Discussion forums, resolution of practical cases and tests. Tutorials and videoconference sessions	20	0.8

Type: Autonomous

Resolution of practical cases. Realization of works. Personal study	120	4.8

Assessment

Delivery of Continuous Assessment Tests (PEC) (40%):

There will be total of 2 continuous assessment practices through the course.

It is a requirement to obtain an average mark of at least a 3.5/10 to make the mark evaluable.

Delivery of the exercises and problems (20%):

There will be 2 follow-up activities through the subject (test type or written development).

Final exam (40%):

There will be a final exam at the end of the course. It is a requirement to obtain a 3.5/10 to make the mark evaluable.

Recovery exam:

In case of not passing the subject in accordance with the criteria mentioned above, a recovery exam will be taken on the date scheduled in the calendar, which will contain 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 transcript will be a maximum of 5-Passed.

Students who need to change an assessment date must submit the application by filling out the document found in the EPSI Tutoring Moodle space.

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 thissubject 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
Follow-up exercises on environmental news.	20%	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 to evaluate the knowledge acquired by the student.	40%	0	0	1, 4, 3

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.