



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Industrial Management and Certification

2122-3-E2702Q104

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#### Aims

Joining fundamental concepts of the main national and international certified management systems for quality, environment, occupational safety, social accountability and food safety. Dealing with practical cases in the operational context of the chemical companies.

#### Contents

Management systems, definitions and application, national and international standards. Management systems for quality (UNI EN ISO 9001), quality control and statistical tools. Environmental management systems (UNI EN ISO 14001). Occupational Safety (UNI EN ISO 45001). Root cause analysis for claims and incidents. Food safety management systems (ISO 22000). Audit of management systems.

#### Detailed program

Introduction to management systems and certification, national and international standards, ISO900x series. Adoption of a certified management systems; the role of Accredia and of the national certification bodies. Integrated management systems. The concept of quality and its evolution over time. Management systems for quality (ISO 9001), quality control and statistical tools. Environmental management systems (ISO 14001); *Responsible Care programme* for chemical companies. Occupational Safety (ISO 45001). Food safety management systems (ISO 22000), HACCP method, control critical points. Elements of industrial risk management. Audit.

## **Prerequisites**

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## **Teaching form**

In compliance with specific anti pandemic protocols, during the Covid19 emergency, classroom and exercises will be handled in accordance with the Ateneo's indications.

## **Textbook and teaching resource**

Professor's slides.

ISO standards ([www.uni.it](http://www.uni.it) ; [www.iso.org](http://www.iso.org))

Accredia guidelines ([www.accredia.it](http://www.accredia.it))

Responsible Care guidelines

L. Pavletic, Le nuove norme sui sistemi di gestione per la qualità (UNI EN ISO 9001:2015) e Gestione Ambientale (UNI EN ISO 14001:2015); Franco Angeli

M. Sartor, Qualità – La gestione, gli strumenti, i metodi e le migliori esperienze; Gruppo 24Ore

D.C. Montgomery, Controllo statistico della qualità; McGraw-Hill

A. Chiarini, La conduzione degli audit; Franco Angeli

Linee guida per l'integrazione dei sistemi di gestione dell'ambiente e della sicurezza e salute sul lavoro nelle piccole e medie imprese; ISPESL

## **Semester**

First semester

## **Assessment method**

Oral examination performed by questions on the topics of the course in reference to the teacher's slides and to the applicative cases discussed during classrooms. During Covid19 emergency period, all the exams will be handled in remote mode through the Google Hangouts platform

## **Office hours**

Everyday, upon reservation by e-mail

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