

MANAGEMENT ENGINEERING (LM54)

(Lecce - Università degli Studi)

Teaching ENERGY MANAGEMENT

GenCod A004627

Owner professor FRANCESCO MICALI

Reference professors for teaching
GIOVANNI MANENTE, FRANCESCO MICALI

Teaching in italian ENERGY MANAGEMENT

Teaching ENERGY MANAGEMENT

SSD code ING-IND/09

Reference course MANAGEMENT ENGINEERING

Course type Laurea Magistrale

Credits 9.0

Teaching hours Front activity hours: 81.0

For enrolled in 2022/2023

Taught in 2022/2023

Course year 1

Language ENGLISH

Curriculum Percorso comune

Location Lecce

Semester First Semester

Exam type Oral

Assessment Final grade

Course timetable

<https://easyroom.unisalento.it/Orario>

BRIEF COURSE DESCRIPTION

Energy Audit - UNI EN 16247 Regulation / parte 1-2-3-4

Le fasi dell' Energy Audit

Diagnosi Energetica di edifici complessi

Elementi di misure

Strumenti per il rilievo di Consumi elettrici tramite sistema di acquisizione Arduino

Elementi di Termodinamica applicata agli impianti termici degli edifici complessi

L' irraggiamento solare giornaliero medio mensile

Produzione di Energia da impianto solare termico e fotovoltaico

Analisi Economica degli interventi di efficientamento degli edifici complessi

Diagnosi Energetica dei processi industriali - UNI 16247 - parte 3

Analisi Economica degli interventi di efficientamento dei processi industriali

Diagnosi Energetica nei trasporti - UNI 16247 parte 4

REQUIREMENTS

knowledge in Thermodynamics - Industrial systems

COURSE AIMS

Common theme is the endorsement of the energy savings performance contracting (ESPC) delivery method, whereby a third party provides implementation services in ex-change for payment via energy savings. In addition to these regulations, many countries have signed executive orders that furthered energy management as good government business practices; however, only the current ones are relevant. Other federal government activities provide valuable support to the private sector for energy conservation. A few examples show how these efforts are enablers to the energy management industry.

The aim of the course is to make student learning how execute a proper energy audit of complex systems acquiring data, analysing them , propose efficient technological solutions, make a proper economical analyses and business plan on the list of opportunities proposed.

TEACHING METHODOLOGY

Slide and Exercises

ASSESSMENT TYPE

Project and Oral

REFERENCE TEXT BOOKS

Energy Management Handbook (Ninth Edition) - Editors
Stephen A. Roosa - Steve Doty - Wayne C. turner

Termodinamica e trasmissione del calore - Yunus A. Cengel - Editore McGraw-Hill