EUROPASS SUPPLEMENT TO THE MASTER'S DEGREE IN VOCATIONAL EDUCATION AND TRAINING

TITLE OF THE TITLE

Master's Degree in Professional Training in Energy Auditing

TITLE DESCRIPTION

The holder has acquired the general competence relating to:
Audit and advise on energy use and consumption and associated cost in buildings, industrial or commercial facilities or operations, transportation linked to private or public activity or service, with the objective of identifying and reporting on energy flows and their potential for improvement.

Within this framework, each PROFESSIONAL MODULE includes the following LEARNING RESULTS acquired by the holder.

"Processes of an energy audit".
The titleholder:

- Characterizes the Spanish energy framework and the European directives on energy efficiency taking into account the existing information and regulations on it.
- Identifies the different energy consuming systems and subsystems describing their characteristics specific to each of them.
- Specifies the physical scope and technical scope of an audit, determining the needs, expectations and limits.
- Plan the organization of an energy audit, optimizing the available resources both for and personnel.

"Data collection and measurement of energy consumption".
The titleholder:

- Collect previous data on the subject of the audit, making an inventory of equipment, consuming systems and energy bills.
- Analyzes the information provided by the audited organization by evaluating the data provided in context.
- Collect data "in situ" using calibrated measuring devices or manual records.

"Analysis of the energy situation of buildings and facilities.".
The titleholder:

- Performs the energy balance of buildings or facilities by analyzing the information provided by the audited organization and the measurements taken.
- Characterizes the available energy consumption history by evaluating the consumption trend and load curves over the period.
- Defines the indicators to measure energy performance by linking them to the level of detail agreed with the client.
- Determines possible areas of action for energy efficiency improvement based on the current performance of the auditee and the audit objectives.

"Assessment of energy improvement of buildings and facilities.".
The titleholder:

- Evaluates energy saving measures by analyzing their potential impact on efficiency improvement, energy diversification, emission reduction and technical feasibility.
- Determines the economic feasibility of improvement proposals by applying analysis techniques economic impact on energy and maintenance costs.
- Establishes the order of priority for the implementation of the improvement opportunities detected according to the criteria previously agreed with the organization.
- It makes the final proposal of the implementation plan considering its technical and economic feasibility.

JOBS THAT CAN BE PERFORMED WITH THIS PROFESSIONAL TRAINING MASTER'S DEGREE IN ENERGY AUDITING

The most relevant occupations and jobs are as follows:

- Energy audit managers.
- Energy auditors.
- Technicians in energy audits in mechanical installations, air conditioning and heating.
- Technicians in energy audits in electricity and lighting installations.
- Technicians in energy audits in buildings.
- Technicians in energy audits in thermal installations.

ISSUANCE, ACCREDITATION AND DEGREE LEVEL

Body that issues the diploma on behalf of the King: Ministry of Education and Vocational Training or the autonomous communities within the scope of their own competences. The title has academic and professional effects with validity throughout the State.

Official duration of the degree: 210 hours.

Degree level (national or international).

- NATIONAL: Non-university higher education.
- INTERNATIONAL:
  - Level P-5.5.4 of the International Standard Classification of Education (ISCED P-5.5.4).
  - Level 5C of the European Qualifications Framework (EQF 5C).

Access requirements:
To access the specialization course in Energy Auditing it is necessary to be in possession of one of the following degrees:

a) Degree of Higher Technician in Development of Thermal and Fluids Installations Projects, established by Royal Decree 219/2008, of February 15, which establishes the degree of Higher Technician in Development of Thermal and Fluids Installations Projects and sets its minimum teaching requirements.

b) Degree of Higher Technician in Maintenance of Thermal and Fluids Installations, as established by the Royal Decree 220/2008, of February 15, 2008, which establishes the degree of Higher Technician in Maintenance of Thermal and Fluids Installations and its minimum teaching requirements are established.

c) Degree of Higher Technician in Energy Efficiency and Solar Thermal Efficiency, established by Royal Decree 1177/2008, of July 11, 2008, which establishes the title of Higher Technician in Energy Efficiency and Solar Thermal Energy and sets its minimum teachings.

d) Degree of Higher Technician in Building Projects, established by Royal Decree 690/2010, of May 20, which establishes the degree of Higher Technician in Building Projects and sets its minimum teaching requirements.

e) Degree of Higher Technician in Electrotechnical and Automated Systems, established by the Royal Decree1127/2010, of September 10, 2010, which establishes the title of Higher Technician in Systems and Automation and establishes its minimum teaching requirements.

f) Degree of Higher Technician in Power Plants, established by Royal Decree 258/2011, of February 28, which establishes the degree of Higher Technician in Power Plants and sets its minimum teachings.

g) Degree of Higher Technician in Renewable Energies, established by Royal Decree 385/2011, of March 18, which establishes the title of Higher Technician in Renewable Energies and sets its minimum teaching requirements.

h) Degree of Higher Technician in Civil Works Projects, established by Royal Decree 386/2011, of March 18, which establishes the degree of Higher Technician in Civil Works Projects and sets its minimum teaching requirements.

i) Degree of Higher Technician in Organization and Control of Construction Works, established by Royal Decree 636/2015, of July 10, which establishes the degree of Higher Technician in Organization and Control of Construction Works and sets the basic aspects of the curriculum.

j) Degree of Higher Technician in Water Management, established by Royal Decree 113/2017, of February 17, establishing the title of Higher Technician in Water Management. and setting the basic aspects of the curriculum.

Access to the next level of education or training: Access to any university study is possible.

Legal basis. Regulations establishing the degree: Minimum teaching requirements established by the State: Royal Decree 921/2022, of October 31, establishing the Higher Level Vocational Training Specialization Course in Energy Auditing and establishing the basic aspects of the curriculum.

Explanatory note: This document is intended as additional information to the title in question, but has no legal validity whatsoever.

FORMATION OF THE OFFICIALLY RECOGNIZED MASTER'S DEGREE

PROFESSIONAL MODULES OF THE MASTER'S DEGREE ROYAL DECREE	ECTS CREDITS
Processes of an energy audit	5
Data collection and measurement of energy consumption	7
Analysis of the energy situation of buildings and facilities.	5
Evaluation of the energy improvement of buildings and facilities.	8
Assessment of energy improvement of buildings and facilities	TOTAL CREDITS
	25
OFFICIAL DURATION OF THE MASTER'S DEGREE (HOURS)	***210***

* The minimum Master's degree courses shown in the table above, 55%, are official and valid in the entire national territory. The remaining 45% belongs to each Autonomous Region and may be reflected in the **Annex I** of this supplement.

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INFORMATION ABOUT THE EDUCATION SYSTEM