

## EUROPASS SUPPLEMENT TO THE DIPLOMA

### TITLE OF THE CERTIFICATE (original language: ES)

*Técnico Superior en Química y Salud Ambiental*

### TRANSLATED TITLE OF THE CERTIFICATE (English)

*Diploma of Higher Education in Environmental Chemistry and Health*

---

### PROFILE OF SKILLS AND COMPETENCES

The holder has acquired general skills relating to monitoring and controlling the effects on health of environmental and food risk factors, participating in the implementation and development of environmental management systems and intervening in public and community health education programmes under the supervision, where appropriate, of his or her superior, in accordance with established protocols, respecting the reference standards in terms of quality and safety.

Within this framework, each PROFESSIONAL MODULE includes the following LEARNING RESULTS that the holder acquires.

#### “Sistemas de gestión ambiental” (Environmental Management Systems).

The title holder:

- Identifies the elements of a quality management system, analysing its structure and applying established procedures.
- Prepares standardised working procedures for the unit, relating the activities to be carried out to the regulations.
- Identifies the environmental aspects that derive from an activity, verifying compliance with the regulations and proposing, if necessary, corrective actions.
- Applies an Environmental Management System (EMS), preparing documentation created using specific computer programs.
- Applies the regulations for the prevention of occupational risks and for environmental protection, identifying any associated risks and the measures and equipment to prevent them.

#### “Educación para la salud y el medio ambiente” (Education for Health and the Environment).

The title holder:

- Characterises epidemiological surveillance activities, relating environmental risks to the health of individuals and to that of the community.
- Plans health and environmental education activities according to the target group, following established health promotion plans and programmes.
- Prepares information to be transmitted on health problems related to the environment, selecting the contents according to the target group.
- Selects communication techniques, adapting them to the characteristics of the group to which the activities are addressed.
- Applies evaluation techniques for health education programmes, relating objectives to the results obtained.

#### “Control de aguas” (Water Control).

The title holder:

- Identifies the sources of pollution of water used and consumed by people, assessing their influence on the environment and on the health of the population.
- Assesses the technical-health deficiencies of water used and consumed by people, identifying the characteristic parameters and contrasting them with the applicable regulations.
- Controls treatment processes for water used and consumed by people, identifying the procedures in the facility to ensure compliance with the established quality parameters.
- Controls treatment processes for waste water, identifying the procedures in the facility to ensure compliance with the established quality parameters.
- Takes samples of water used and consumed by people, applying working procedures in accordance with the regulations.
- Performs physicochemical quality controls, applying standardised work procedures and interpreting results.
- Performs microbiological quality controls, applying standardised work procedures and interpreting results.
- Determines action protocols to minimise the health effects associated with the contamination of water used and consumed by people, evaluating risks and proposing corrective measures.

### **“Control de residuos” (Waste Control).**

The title holder:

- Identifies possible sources of soil pollution, characterising the process of waste generation and the main pollutants.
- Characterises solid waste management systems, analysing process efficiency and proposing corrective measures.
- Takes soil and solid waste samples, applying working procedures in accordance with the regulations.
- Analyses soils and solid waste, applying established protocols and recording the results.
- Selects action protocols to minimise the effects of contamination associated with solid waste, evaluating risks and proposing corrective measures.

### **“Salud y riesgos del medio construido” (Health and Risks in the Built Environment).**

The title holder:

- Applies inspection and control procedures, relating health and hygiene conditions to deficiencies in the built environment, and applying the corresponding preventive measures.
- Applies inspection and control procedures, relating annoying, unhealthy, harmful and dangerous activities (AUHD) to established preventive and corrective measures.
- Takes samples of elements of the built environment, selecting the procedure in accordance with the characteristics of the sample and applying it in accordance with the established action protocol.
- Analyses and measures physical-chemical parameters of elements of the built environment, applying the established protocols and recording the results.
- Develops environmental surveillance programmes in the built environment, relating specific health, welfare and environmental risks to prevention and protection measures.

### **“Control y seguridad alimentaria” (Food Control and Safety).**

The title holder:

- Draws up work plans for food inspection and health control, identifying tasks, critical points and resources.
- Identifies technical and health deficiencies in food products, applying health inspection and control techniques in accordance with the regulations.
- Takes food samples, selecting the procedure in accordance with the characteristics of the sample and applying it in accordance with the established action protocol.
- Analyses the quality of food in terms of health and hygiene, applying established protocols and recording the results.
- Develops training programmes and information campaigns on food safety and consumption, applying methodologies and communication techniques.

### **“Contaminación ambiental y atmosférica” (Environmental and Atmospheric Pollution).**

The title holder:

- Identifies the sources of atmospheric pollution, assessing their influence on the environment and on the health of the population.
- Takes air samples, following the procedures established in accordance with the regulations.
- Determines air quality identifying characteristic parameters and contrasting them with the regulations.
- Controls purification processes for atmospheric emissions, identifying the procedures to ensure compliance with the established quality parameters.
- Determines the incidence of pollution of physical origin on environmental quality by interpreting the regulations.
- Determines action protocols to minimise the effects of atmospheric and environmental contamination, evaluating risks and proposing corrective measures.

### **“Control de organismos nocivos” (Control of Harmful Organisms).**

The title holder:

- Applies procedures for the inspection of commercial, service and residential establishments, identifying the structural elements and the health and hygiene conditions that influence the development of harmful organisms.
- Selects techniques for the identification and control of pests, relating vectors and harmful organisms with their effects on health and the environment.
- Selects the main means used to control harmful organisms and vectors, assessing their efficacy, efficiency and effectiveness.
- Takes samples of vectors and harmful organisms and of chemical and phytosanitary products for laboratory analysis, following standardised working procedures.

### **“Unidad de salud ambiental” (Environmental Health Unit).**

The title holder:

- Identifies the objectives and functions of an environmental health unit, relating the provision of services to the organisational structure of the health sector.
- Manages the unit's technical documentation, using document management programmes and recording and archiving systems.
- Manages the material resources of environmental health units, applying logistics techniques.

- Prepares and implements equipment, programming their operation and maintenance activities.
- Draws up reports and activity summaries, using data exploitation methods and software applications.

#### **“Proyecto de química y salud ambiental” (Environmental Chemistry and Health Project).**

The title holder:

- Identifies needs in the productive sector, relating them to standard projects that can satisfy them.
- Designs projects related to the skills expressed in the diploma, including and developing its component phases.
- Plans the implementation or execution of the project, determining the intervention plan and associated documentation.
- Defines the procedures used to monitor and control the execution of the project, justifying the selection of variables and instruments used.

#### **“Formación y orientación laboral” (Training and Career Guidance).**

The title holder:

- Selects employment opportunities, identifying the different possibilities of insertion and lifelong learning alternatives.
- Applies teamwork strategies, assessing their effectiveness and efficiency for the achievement of the organisation's objectives.
- Exercises the rights and complies with the obligations derived from labour relations, recognising them in the different employment contracts.
- Determines the protective action of the Social Security system in the face of the different contingencies covered, identifying the different types of benefits.
- Assesses the risks derived from his or her activity, analysing the working conditions and the risk factors that exist in their working environment.
- Participates in the preparation of a risk prevention plan in a small company, identifying the responsibilities of all the agents involved.
- Applies prevention and protection measures, analysing risk situations in the work environment of the holder of a Diploma of Higher Education in Environmental Chemistry and Health.

#### **“Empresa e iniciativa emprendedora” (Company and Entrepreneurial Initiative).**

The title holder:

- Recognises skills associated with entrepreneurship, analysing requirements derived from jobs and business activities.
- Defines the opportunity to create a small company, assessing its impact on the environment and incorporating ethical values.
- Carries out activities for the incorporation and start-up of a company, selecting the legal form and identifying the associated legal obligations.
- Carries out administrative and financial management activities for an SME, identifying the main accounting and tax obligations and filling in documentation.

#### **“Formación en centros de trabajo” (Workplace Training).**

The title holder:

- Identifies the structure and organisation of the company, relating them to the type of service it provides.
- Applies ethical and labour habits in the development of his or her professional activity, in accordance with the characteristics of the job and the procedures established in the company.
- Collaborates in the maintenance of environmental management systems, applying the quality manual of the company or organisation.
- Manages the unit's logistics, applying the protocols established by the company or organisation.
- Detects technical and health deficiencies associated with environmental pollution, applying preventive and risk control techniques under the supervision of the expert responsible for such matters in the company.
- Verifies compliance with the regulations governing the prevention of occupational risks and protection, carrying out and interpreting analyses in accordance with established procedures.
- Collaborates in the application of health and/or environmental education plans, programming promotional activities according to the target group.

### **RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE**

The Holder of a Diploma of Higher Education in Environmental Chemistry and Health.

The following are the most relevant occupations and jobs:

- Environmental management technician.
- Environmental management system coordinator.
- Environmental activities programmer.
- Environmental documentalist.
- Health control technician (food, water, atmosphere, waste...).
- Atmospheric pollution control technician.
- Noise pollution control technician.

- Harmful organisms control technician.
- Technician in pest control in the urban environment and in the associated natural environment.
- Salesperson providing information on biocide and phytosanitary products.

### OFFICIAL BASIS OF THE CERTIFICATE

**Name and status of the body awarding the certificate:** The Ministerio de Educación (the Ministry of Education) or the Autonomous Communities in the area of their own administrative responsibility. The degree has academic and professional effects that are valid throughout the entire State.

**Official duration of the Diploma:** 2,000 hours.

**Level of the certificate (national or international)**

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

**Entry requirements:** A Bachelor's Degree or a Certificate of having passed the corresponding access test.

**Access to the next level of education or training:** The holder will be able to access any university degree course.

**Legal basis.** Rules and regulations on which the Diploma is based:

Minimum teaching requirements established by the State: Royal Decree 283/2019, of 22 April, which establishes the diploma of Higher Education in Environmental Chemistry and Health, and which lays down the corresponding minimum education requirements.

**Explanatory note:** This document is intended as supplementary information to the Diploma in question, but on its own it does not have any legal validity.

### COURSE STRUCTURE OF THE OFFICIALLY RECOGNISED DIPLOMA

PROFESSIONAL MODULES OF THE DIPLOMA ESTABLISHED IN THE ROYAL DECREE	ECTS CREDITS
<b>Environmental Management Systems.</b>	6
<b>Education for Health and the Environment.</b>	4
<b>Water Control.</b>	20
<b>Waste Control.</b>	6
<b>Health and Risks in the Built Environment.</b>	6
<b>Food Control and Safety.</b>	14
<b>Environmental and Atmospheric Pollution.</b>	9
<b>Control of Harmful Organisms.</b>	10
<b>Environmental Health Unit.</b>	9
<b>Environmental Chemistry and Health Project.</b>	5
<b>Training and Career Guidance</b>	5
<b>Company and Entrepreneurial Initiative.</b>	4
<b>Workplace Training</b>	22
	TOTAL CREDITS
	<b>120</b>
OFFICIAL DURATION OF THE DIPLOMA (HOURS)	<b>2,000</b>

\* 55% of the minimum education requirements of the diploma reflected in the above table is of an official nature and is valid throughout the national territory. The remaining 45% is specific to each Autonomous Community and may be reflected in **Annex I** to this supplement.

## INFORMATION ABOUT THE EDUCATION SYSTEM

