

# EUROPASS DIPLOMA SUPPLEMENT

## TITLE OF THE DIPLOMA (ES)

*Técnico Superior en Diseño y Amueblamiento*

## TRANSLATED TITLE OF THE DIPLOMA (EN)<sup>(1)</sup>

*Higher Technician in Design and Furnishing*

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(1) This translation has no legal status.

## DIPLOMA DESCRIPTION

**The holder of this diploma will have acquired the General Competence with regard to:**

Designing furniture and joinery manufacture, managing their production and installation, and participating in the maintenance of quality systems, environmental protection and labour risk prevention.

**Within this framework, the PROFESSIONAL MODULES and their respective LEARNING OUTCOMES acquired by the holder are listed below:**

### “Processes in Carpentry and Furniture Industries”

The holder:

- Characterizes the productive structure of the wood and furniture industry, identifying types of companies and relating them to their geographical location, size, production process used and the product obtained.
- Classifies woods, performing mechanical tests and relating the results obtained to the specifications and applications for carpentry and furniture making.
- Identifies timber products and other materials used in the wood industry and furniture, conducting mechanical tests and relating the results obtained to the specifications and applications.
- Classifies coating materials used in the wood and furniture industry, carrying out physicochemical and mechanical tests, relating the results obtained to the specifications and applications.
- Characterizes wood processing, justifying their sequence and relating the raw material to the products and the byproducts obtained.
- Identifies building systems in carpentry and furniture industry, differentiating them according to their installation and operation.
- Applies procedures on labour risk prevention and environmental protection, evaluating risk situations and managing the most common measures presented in his/her work.

### “Manufacture in Carpentry and Furniture”

The holder:

- Identifies assembly and bonding systems, relating their performance to the aesthetic and functional results to be obtained.
- Selects materials for woodworking and furniture making, justifying their choice depending on the characteristics of the product.
- Performs tagging operations, interpreting graphic documentation and applying measurement and tracing techniques.
- Prepares portable and conventional machines for the manufacturing of wood and wood elements, performing start-up and maintenance operations.
- Obtains pieces, carrying out machining operations and verifying the quality of the product.
- Composes carpentry and furniture sets, interpreting technical documentation, assembling subsets and adjusting its elements.
- Applies tinting and finishing products with manual and mechanical means, checking that the result responds to the demanded one.
- Applies procedures on labour risk prevention and environmental protection, evaluating risk situations and managing the most common measures presented in his/her work.

### “Representation in Carpentry and Furniture”

The holder:

- Represents elements and sets of carpentry and furniture, drawing views and perspectives freehand.
- Represents carpentry and furniture products, drawing views and sections using drawing tools on board.
- Develops graphic documentation of carpentry and furniture products, drawing plans by computer-aided design programs.
- Develops plans of carpentry and furniture products, representing its components and incorporating technical data for the manufacturing.
- Manages the graphic documentation of carpentry and furniture products, reproducing, organizing and filing plans on hard –copy or computer storage media.

### **“Prototypes in Carpentry and Furniture”**

The holder:

- Gathers technical information for building prototypes, analyzing manufacturing projects and planning processes for their preparation.
- Programs prototype manufacture, relating the sequence of the operations established to the required technical specifications and the available means.
- Develops prototype parts and components for furniture and joinery elements, performing machining operations with hand tools and portable and/or conventional machinery.
- Assembles prototypes of furniture and carpentry elements, composing sets by means of hand tools and portable and/or conventional machinery.
- Evaluates prototypes of furniture and joinery elements, performing testing, preparing reports and proposing improvements.
- Applies procedures on labour risk prevention and environmental protection, evaluating risk situations and managing the most common measures present in his/her work.

### **“Product Development in Carpentry and Furniture”**

The holder:

- Selects information for the development of carpentry and furniture products, considering trends and bearing in mind economic factors.
- Prepares proposals for f woodworking product development, illustrating possible solutions and justifying the adopted ones.
- Defines the features and specifications of new joinery products, justifying the solution adopted and optimizing the available resources for their manufacturing.
- Prepares proposals for furniture development, illustrating possible solutions and justifying the adopted ones.
- Defines the features and the specifications of new furniture, justifying the solution adopted and optimizing the available resources for their manufacturing.
- Manages product documentation of carpentry and furniture products, reproducing and filing reports, budgets and documents with their specifications.

### **“Automation in Carpentry and Furniture”**

The holder:

- Organizes lines for the manufacture of joinery and furniture elements, determining automated production equipment.
- Performs NC programs to manufacture joinery and furniture, relating the sequence of operations to the characteristics of the items manufactured.
- Develops programs for machining of joinery elements and furniture, applying computer-aided manufacturing techniques (CAM).
- Manages automated manufacturing processes, mechanizing parts of carpentry and furniture, checking their characteristics through sampling techniques and correcting the deviations detected.
- Plans the maintenance of automated manufacturing equipment in carpentry and furniture, organizing interventions according to the instructions of the operating and maintenance manuals.
- Complies with the rules on labour risk prevention and environmental protection, identifying the associated risks, the measures and the equipment to prevent them.

### **“Joinery and Furniture Installation”**

The holder:

- Classifies assembly systems for carpentry and furniture installations, characterizing the installation procedures.
- Organizes the assembly of joinery and furniture installations, sequencing operations and determining resources.
- Supervises the assembly of the woodwork, controlling the elements' fixing, performing control operations, and setting and checking leveling standards.
- Supervises the assembly of furniture, controlling the elements' fixing, carrying out control, setting and leveling operations, verifying quality standards.
- Applies quality procedures, verifying the installation of joinery and furniture and identifying incidents and defects, and relating them to their possible causes and solutions.
- Applies procedures on labour risk prevention and environmental protection, evaluating risk situations and managing the most common measures presented in his/her work.

### **“Carpentry and Furniture Design”**

The holder:

- Selects information for the performance of installation projects of carpentry and furniture, considering trends and taking into account economic factors.
- Prepares technical documentation for the installation of joinery products, illustrating and justifying the adopted solutions.
- Defines installation processes for furniture, planning work and optimizing the available resources.
- Prepares technical documentation for furnishing, illustrating solutions and justifying the adopted ones.
- Defines processes of furniture installation, planning the work to be done and optimizing the available resources.
- Prepares reports and budgets of carpentry and furniture installation, identifying documentation and establishing their relationship, content and features.

- Manages project documentation of carpentry and furniture installations, reproducing and filing reports, plans, budgets and specifications.

#### **“Production Management in Carpentry and Furniture”**

The holder:

- Manages supplies in carpentry and furniture industries, planning supply procedures and completing sales documentation.
- Supervises the receipt of supplies, organizing their storage and controlling the stock.
- Manages information and documentation systems for the supply in carpentry and furniture industries, relating control procedures with to the documentation required for processing.
- Determines resources for carpentry and furniture manufacturing, assigning tasks depending on the available facilities.
- Supervises operations in carpentry and furniture making, controlling production plans and the checking quality parameters.
- Applies procedures on labour risk prevention and environmental protection, evaluating risk situations and managing the most common measures presented in his/her work.

#### **“Project on Design and Furnishing”**

The holder:

- Identifies the needs of the production sector, relating them to the standard projects that may satisfy them.
- Designs projects related to the competences described in the diploma, including and developing their constituting stages.
- Plans the project implementation, determining the intervention plan and the associated documentation.
- Defines the procedures to monitor and control the project implementation, justifying the selection of the variables and the instruments used.

#### **“Professional Training and Guidance”**

The holder:

- Selects job opportunities, identifying the different possibilities of labour integration, and the alternatives of lifelong learning.
- Applies teamwork strategies, assessing their effectiveness and efficiency on the achievement of the company's goals.
- Exercises rights and complies with the duties derived from labour relationships, recognising them in the different job contracts.
- Determines the protective action of the Spanish Health Service in view of the different covered eventualities, identifying the different types of assistance.
- Assesses the risks derived from his/her activity, analysing job conditions and the risk factors present in his/her labour setting.
- Participates in the development of a risk prevention plan for a small enterprise, identifying the responsibilities of all the agents involved.
- Applies protection and prevention measures, analysing risk situations in the labour setting of the Higher Technician in Design and Furnishing.

#### **“Business and Entrepreneurial Initiative”**

The holder:

- Recognizes the skills related to entrepreneurial initiative, analysing the requirements derived from the different job positions and business activities.
- Defines the opportunity of creating a small enterprise, assessing the impact on the sphere of action and incorporating ethic values.
- Carries out the activities for the setting-up and implementation of a company, choosing its legal structure and identifying the associated legal obligations.
- Carries out basic administrative and financial management activities of an SME, identifying the main accounting and tax obligations and filling in documentation.

#### **“On the Job Training”**

The holder:

- Identifies the structure and the organization of the company, relating them to the type of service provided.
- Applies ethical and work habits in the development of his/her profession, according to the characteristics of the job and the procedures established by the company.
- Obtains information for the development of projects of construction and installation of joinery and furniture, analyzing technical documentation and creating sketches for locating, configuring and characterizing significant elements.
- Develops furniture and woodworking projects, proposing solutions and developing graphic and written documentation.
- Prepares and tunes up the machinery, equipment, fixtures and tools involved in the automated manufacturing process, applying the techniques and the procedures required.
- Applies the rules on occupational health and safety and environmental protection.

- Manages project and facilities documentation for carpentry and furniture installations, reproducing and filing it according to the established quality criteria.

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

The Higher Technician in Design and Furnishing works in the field of production and installation of joinery and furniture, in small, medium and large businesses, either as an employee or self-employed, developing technical design features, production monitoring, automated manufacturing, project delivery and installation of furnishings.

The most relevant occupations or jobs are the following:

- Furniture design draftsman.
- Technician in development of woodworking and furniture products.
- Carpentry and furniture designer.
- Business Manager in wooden furniture and other manufacturing companies.
- Technician in quality control in wood and cork industries.
- Responsible for technical office.
- Head of manufacture.
- Production Controller.
- Department manager.
- Department manager.

### **AWARD, ACCREDITATION AND LEVEL OF THE DIPLOMA**

**Name of the body awarding the diploma on behalf of the King of Spain:** Spanish Ministry of Education or the different Autonomous Communities according to their areas of competence. The title has academic and professional validity throughout Spain.

**Official duration of the education/ training leading to the diploma:** 2000 hours.

#### **Level of the diploma (national or international)**

- NATIONAL: Non-University Higher Education
- INTERNATIONAL:
  - Level 5 of the International Standard Classification of Education (ISCED5).
  - Level \_\_\_\_\_ of the European Qualifications Framework (EQF\_\_).

**Entry requirements:** Holding the Certificate in Post-Compulsory Secondary Education (Bachillerato) or holding the corresponding access test.

**Access to next level of education/training:** This diploma provides access to university studies.

**Legal basis:** Basic regulation according to which the diploma is established:

- Minimum teaching requirements established by the State: Royal Decree 1579/2011, of 4 November, according to which the diploma of Higher Technician in Design and Furnishing and its corresponding minimum teaching requirements are established.

**Explanatory note:** This document is designed to provide additional information about the specified diploma and does not have any legal status in itself.

**COURSE STRUCTURE OF THE OFFICIALLY RECOGNISED DIPLOMA**

<b>PROFESSIONAL MODULES IN THE DIPLOMA ROYAL DECREE</b>	<b>CREDITS ECTS</b>
<b>Processes in Carpentry and Furniture Industries</b>	5
<b>Manufacture in Carpentry and Furniture</b>	10
<b>Representation in Carpentry and Furniture</b>	10
<b>Prototypes in Carpentry and Furniture</b>	10
<b>Product Development in Carpentry and Furniture</b>	10
<b>Automation in Carpentry and Furniture</b>	12
<b>Joinery and Furniture Installation</b>	9
<b>Carpentry and Furniture Design</b>	9
<b>Production Management in Carpentry and Furniture</b>	9
<b>Project on Design and Furnishing</b>	5
<b>Professional Training and Guidance</b>	5
<b>Business and Entrepreneurial Initiative</b>	4
<b>On the Job Training</b>	22
	TOTAL CREDITS
	<b>120</b>
<b>OFFICIAL DURATION (HOURS)</b>	<b>2000</b>

\* The minimum teaching requirements shown in the table above comprise 55% official credit points valid throughout Spain. The remaining 45% corresponds to each Autonomous Community and can be described in the **Annex I** of this supplement.

## INFORMATION ON THE EDUCATION SYSTEM

