

EUROPASS SUPPLEMENT TO THE DIPLOMA OF TÉCNICO SUPERIOR DE ARTES PLÁSTICAS Y DISEÑO (HIGHER EDUCATION IN PLASTIC ARTS AND DESIGN)

TÉCNICO SUPERIOR DE ARTES PLÁSTICAS Y DISEÑO EN RECUBRIMIENTOS CERÁMICOS
(DIPLOMA OF HIGHER EDUCATION IN PLASTIC ARTS AND DESIGN IN CERAMIC COATINGS)

PROFILE OF SKILLS AND COMPETENCES

The holder has acquired general skills relating to:

Devising two-dimensional ceramic pieces intended for coatings and producing them using mass-produced manufacturing procedures, whether it is a project of their own or a specific professional assignment. Planning the ceramic creation process by defining the formal, functional, material and production aspects. Organising and carrying out the various stages of the process, ensuring the safety of the operations and performing the corresponding quality control checks until the finished product is achieved.

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

“Dibujo artístico” (Artistic Drawing)

The title holder:

- Graphically represents both forms found in the environment and images of his or her own creation.
- Uses the different materials and drawing techniques as the basic tools with which to search for and formally define images and for the graphic communication of ideas.
- Analyses the foundations and the theory of colour, its importance in artistic-plastic creative processes and its applications in the field of ceramics.
- Develops his or her capacity for personal aesthetic enjoyment, inventiveness and eloquence.

“Dibujo técnico” (Technical Drawing)

The title holder:

- Uses the methods, procedures, conventions and graphic techniques that are specific to technical drawing when searching for and when formally defining three-dimensional objects and in the graphic communication of ideas.
- Represents and delimits ceramic objects, both from their surroundings and of their own invention, using the appropriate system of representation.
- Understands the graphic information of designs and projects involving the creation of ceramic pieces.
- Appreciates technical drawing as a basic tool for objectively representing forms, transmitting precise information as to the objects and for devising, designing and manufacturing such objects.

“Historia de la Cerámica” (History of Ceramics)

The title holder:

- Analyses the technical and plastic dimension of the ceramic arts down through the ages, and interprets their historical development and their aesthetic evolution.
- Develops his or her visual and conceptual understanding of the artistic language inherent in the ceramic arts.
- Understands the expressive language that characterizes ceramics from every era, style or tendency and its relationship to the art, architecture and the society of the time in which it was produced.
- Is familiar with the investigation and renewal processes that have taken place in the field of ceramic manufacturing throughout this century.

“Materiales y Tecnología: Cerámica” (Materials and Technology: Ceramics)

The title holder:

- Understands the scientific bases of the processes used to produce ceramic materials.
- Classifies ceramic materials and analyses their most significant characteristics, structures and properties.
- Analyses the different stages of the processing of ceramic materials and the physical and chemical changes that each material undergoes.
- Knows the physical and chemical transformations that take place in the pastes when they are fired, calculates the contractions and dilatations and prevents deformations during the productive process.
- Explains the influence that the process conditions have on the quality of the final product, classifies the different defects that may arise and differentiates between the most appropriate quality-control procedures at any given time.
- Identifies the machinery and tools used in the different stages of the ceramic process, classifies them and describes how they are used, how they function and their basic maintenance operations.
- Appreciates the role of scientific methodology and technique in ceramic research, both in the field of new materials and in productive processes and quality control.
- Knows the national and international regulations that apply to the ceramic tile manufacturing sector.

“Medios informáticos” (IT Media)

The title holder:

- Knows and uses computer material and equipment.
- Knows and uses the software that is most appropriate to the professional practice of the speciality.

- Analyses the presence of today's new technologies in planning and producing industrial ceramics.
- Uses IT resources as instruments for devising, managing and communicating his or her own work.

“Taller de técnicas decorativas” (Decorative Techniques Workshop)

The title holder:

- Knows the different graphic printing systems and their relationship with the different industrial techniques for ceramic decoration.
- Classifies and characterises the different artisanal and industrial decorative techniques for ceramic products.
- Explains the stages, procedures, materials and tools that are specific to each technique.
- Selects and applies the decorative procedure that is most appropriate to the technical, functional and artistic characteristics of the ceramic piece or prototype.
- Decorates the ceramic coating prototypes, verifying the appropriate quality control checks throughout the process.
- Identifies and analyses the decorative intervention procedures carried out on different utilitarian and artistic ceramic products and assesses their technical and aesthetic quality.

“Taller de procesos de pre-impresión” (Pre-print Processes Workshop)

The title holder:

- Analyses the different graphic printing systems, the characteristics and operations of the corresponding pre-print processes, how they are applied in decorative ceramic intervention procedures and their relationship with the manufacturing stages of the ceramic product.
- Obtains, using photographic or digital methods, originals intended for the decoration of ceramic coatings.
 - Creates screen printing stencils intended for the decoration of ceramic slabs or tiles using photomechanical and/or digital procedures and operations.
- Prepares rotogravure and flexography sheets intended for the decoration of ceramic slabs or tiles using photomechanical and/or digital procedures and operations.
- Prepares originals intended for the decoration of ceramic coatings, using inkjet printing systems.
- Performs the appropriate quality controls during each stage of the pre-print procedures, identifies faults and resolves problems in accordance with the technical and aesthetic design specifications.
- Identifies and respects the safety and hygiene standards that are appropriate to the processes that involve handling and pre-print processes.

“Prototipos y series de prueba” (Prototypes and Test Batches)

The title holder:

- Has an overall and sequential understanding of the ceramic tile manufacturing process,

analyses the process variables and assesses whether it is pertinent to develop the prototypes that make it possible to evaluate and adapt them in accordance with the quality of the final product.

- Prepares moulds for the production of ceramic tile test batches based on the technical and aesthetic specifications of a given project or of the actual design.
- Develops prototypes of ceramic pieces intended for coatings; schedules and carries out the laboratory scale and the pilot plant tests and evaluates them in accordance with the quality and safety of the subsequent production process.
- Draws up reports on the prototype development tests and product sheets.
- Organises the laboratory/workshop in accordance with the ergonomic and functional requirements of the equipment, the facilities, the space and the user, not to mention the requirements of safety, hygiene and environmental protection as they apply to the manufacture of ceramic moulds and prototypes.

“Proyectos de recubrimientos cerámicos” (Ceramic Coatings Projects)

The title holder:

- Analyses the relationship between design and project methodology and applies the most suitable methodology or methodologies to the design of ceramic coatings.
- Develops and exhibits projects of ceramic coatings.
- Materialises projects of ceramic coatings in all their phases, until he or she obtains the final product.
- Applies idea validation processes from the development of prototypes.
- Begins his or her formal and aesthetic search for ceramic coatings and research into ceramic material and its expressive qualities.
- Appreciates ceramic design as an opportunity for research and for personal artistic expression.

“Proyecto integrado” (Integrated Project)

The title holder:

- Develops and exhibits his or her own mass-production or artisanal project involving ceramic pieces intended for ceramic coatings.
- Materialises the ceramic coatings project in all its phases, from the selection of the most appropriate materials and techniques until he or she obtains the prototype.
- Develops, through the design of ceramic coatings, his or her own sense of aesthetics and creative capacity.

“Formación y Orientación Laboral” (Training and Career Guidance)

The title holder:

- Analyses the legal working framework and defines the rights and obligations that derive from labour relations.
- Identifies the different ways by which to enter the labour market and lifelong training, as well

as the activities and initiatives of organisations and institutions that are dedicated to this end.

- Puts forward a plan for the organisation of a crafts workshop and for a small or medium-sized ceramic manufacturing enterprise, taking into account such factors as production, marketing, distribution, commercial relationships and the relevant legal and social-labour aspects.
- Evaluates the legal framework as far as working, health and the environment is concerned and its impact on the productive activity and on the quality of one's working and personal life.
- Analyses the specific regulations governing ceramic design and the industry.
- Appreciates cooperation, self-criticism and teamwork as attitudes which contribute to achieving better results in the productive activity.

“Prácticas en empresas, estudios o talleres” (Practical Training in Companies, Studios or Workshops)

The title holder:

- Knows the day-to-day working routines of a ceramic company or crafts workshop.
- Carries out the professional tasks that correspond to his or her level of training.
- He or she enters into contact with the working world and the company's social, working and technical systems.
- Contrasts the knowledge, training and skills acquired in the educational centre with the ceramic industry's corporate and working reality.
- Incorporates into their training knowledge relating to the work environment in the field of ceramic coatings, the market situation and market relationships, artistic and cultural tendencies, how work is organised and coordinated, corporate management, social - occupational relationships within the company, etc., all of which is needed when setting out on a career.
- Acquires technical knowledge of specialized tools, instruments, materials and machinery.
- Actively participates in the ceramic production phases under the guidance of the corresponding tutor or coordinator.
- Applies the knowledge, skills and abilities acquired during the theoretical and practical training period provided by the educational centre.

RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE

The Holder of a Higher Diploma of Education in Plastic Arts and Design in Ceramic Coatings carries out his or her activity as an independent professional devising and creating original ceramic pieces intended for coatings and, as the case may be, organising and coordinating small working groups.

He or she may also develop their professional career as an employee in small and medium-sized companies in the ceramic and other such fields, and in the production department that corresponds to their professional training.

The following are the most relevant occupations and jobs:

- Artisanal tile maker.
- Creator and producer of tiles, slabs and ceramic pieces intended for pavements and coatings.
- Enameller of ceramics and porcelain.
- Technician developing prototypes and test batches prior to their product launch.
- Designer of reliefs for ceramic coatings.
- Designer of ceramic slabs.

OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate: The Ministerio de Educación, Cultura y Deporte (the Ministry of Education, Culture and Sport) 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 (EQF5).

Entry requirements: Bachelor's Degree or Certificate of having passed the corresponding access test and the specific access test.

Access to the next level of education or training: It is possible to move on to higher education in artistic teaching and to any university degree course.

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

- Royal Decree 37/2010, of 15 January, which establishes the Higher Diplomas of Education in Plastic Arts and Design in Artistic Pottery, in Ceramic Modelling and Die Tooling and in Ceramic Coatings and the Diplomas of Education in Plastic Arts and Design in Pottery and in Ceramic Decoration, belonging to the professional and artistic family of Artistic Ceramics and which approves 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. It may be accompanied by an Annex I which the corresponding Autonomous Community shall fill in.

COURSE STRUCTURE OF THE OFFICIALLY RECOGNISED DIPLOMA

PROFESSIONAL MODULES OF THE DIPLOMA ESTABLISHED IN THE ROYAL DECREE	ECTS CREDITS
Artistic Drawing	3
Technical Drawing	3
History of Ceramics	3
Materials and Technology: Ceramics	8
IT Media	7
Prototypes and Test Batches	8
Decorative Techniques Workshop	5
Pre-print Processes Workshop	5
Ceramic Coatings Projects	9
Integrated Project	9
Training and Career Guidance	3
Practical Training in Companies, Studios or Workshops	3
	TOTAL CREDITS
<i>TOTAL MINIMUM EDUCATION REQUIREMENTS</i>	66
OFFICIAL DURATION OF THE DIPLOMA	2,000

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

INFORMATION ABOUT THE EDUCATION SYSTEM

