

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
IFCD0112 PROGRAMACIÓN CON LENGUAJES ORIENTADOS A OBJETOS Y BASES DE DATOS RELACIONALES**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
IFCD0112 PROGRAMMING WITH OBJECT-ORIENTED LANGUAGES AND RELATIONAL DATABASES
(This translation has no legal status)**

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to develop computer applications according to a specified design using object-oriented languages and relational databases. This general competence is divided into the following **skills units** (UC):

- Configure and use computer systems (UC0223_3).
- Program relational databases (UC0226_3).
- Develop software components in object-oriented programming languages (UC0227_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Operating systems and computer applications (MF0223_3).
- Programming of relational databases (MF0226_3).
- Object-oriented programming (MF0227_3).
- Practical training at the workplace in programming with object-oriented languages and relational databases (MP0501)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Recognise and describe encoding and nomenclature of computing elements in accordance with the most standard criteria.
- Dominate the fundamental concepts of the object-oriented paradigm.
- Apply the basic concepts of the web programming model.
- Prepare the complete documentation relative to the classes developed and tests carried out.
- Carry out connections with relational databases.
- Handle the software engineering tools.
- Formulate queries on data manipulation and definition, based on the database design and user requirements.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in the following types of companies: software development companies; Technical IT systems consultants; E-service and technical assistance companies; and companies or organisations that use computer systems for their administration. The most pertinent occupations and positions are:

- Data mining technician.
- Management applications programmer.

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

5. OFFICIAL BASIS OF THE CERTIFICATE	
Level of the certificate	
The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).	
The European Qualification Framework (EQF) level:	
Grading scale/Pass requirements	
The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.	
The grading system is as follows:	
<ul style="list-style-type: none"> - FAIL: 0 to 4.9 - PASS-SATISFACTORY: 5 to 6.9 - PASS-GOOD: 7 to 8.9 - PASS-EXCELLENT: 9 to 10 	
Access to next level of education/training	
This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.	
For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.	
Legal basis	
Royal Decree 628/2013 of 2 August, establishing four professional certificates in the professional family Information and Communications Technology, which are included in the National Repertoire of Professional Certificates, and updating the professional certificates established as Appendices I, II, III, IV, V, VI, VII, VIII, IX, X, XI and XII of Royal Decree 1531/2011 of 31 October, and as Appendices I, II, III, IV, V and VI of Royal Decree 686/2011 of 13 May. (Appendix IV, Code: IFCD0112)	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE		
This certificate may be acquired by:		
<ol style="list-style-type: none"> 1. Training: Completion with a pass grade of the face-to-face or online training programme. 2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate. 3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate. 		
The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:		
Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	89	630
Practical training at the workplace	11	80
Total duration of training leading to the certificate		710

Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

Additional information: Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: www.sepe.es

National Europass Centre: www.oapee.es

(*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

