

1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 3 en
QUIE0111 ORGANIZACIÓN Y CONTROL DE PROCESOS Y REALIZACIÓN DE SERVICIOS BIOTECNOLÓGICOS

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 3 in
QUIE0111 ORGANISATION AND CONTROL OF PROCESS AND PROVISION OF BIOTECHNOLOGICAL SERVICES
 (This translation has no legal status)

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to organise and participate in biotechnological process operations to obtain products and provide services, meaning the results or information generated through biotechnological means, improving products or controlling and supervising the correct operation of installation and equipment used in the processes, abiding by and ensuring compliance with the standard working procedures and established safety, occupational health and environmental protection conditions. This general competence is divided into the following **skills units** (UC):

- Organise the manufacture of products with a biological base and the development of biotechnological services (UC1557_3).
- Obtain and exchange biotechnological data online, using bioinformatics techniques (UC1537_3).
- Supervise the basic control systems (UC0577_3).
- Supervise and operate the advanced control and optimisation systems (UC0578_3).
- Guarantee the quality of the process for obtaining biotechnological products and services (UC1558_3).
- Supervise correct compliance with the safety and environmental regulations in biotechnology (UC1541_3).

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

- Organisation of the manufacture of products with a biological base and the development of biotechnological services (MF1557_3).
- Bioinformatics (MF1537_3).
- Basic process control systems (MF0577_3).
- Advanced control and process optimisation systems (MF0578_3).
- Biotechnological product process quality guarantee (MF1558_3).
- Safety and environmental regulations in biotechnology (MF1541_3).
- Practical training at the workplace in organisation and control of process and provision of biotechnological services (MPO437)

(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:

- Manage operations and documentation required in the planning and control of batch production.
- Ensure the aseptic conditions needed for the correct operation of the production equipment.
- Apply criteria to supervise, manage and organise the routine and special activities of a working group in the production area.
- Determine the need for auxiliary products or services for the distribution of energy and/or auxiliary services.
- Determine the necessary conditions for biological culture in the process.
- 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 biotechnological companies, in the area of obtaining products and carrying out biotechnological services; in sectors where technologies are used that mean the use of live organisms or their components, this being the main activity, or in those where, although it is not their main activity, they may innovate some products and processes using biotechnological techniques. The holder may work in the sectors of biotechnology, pharmaceuticals, cosmetics, chemicals, agriculture and food, energy resources, mining and the environment, as well as other sectors where these technologies are used.

The most pertinent occupations and positions are:

- Bioreactor equipment manager.
- Manager of the biotechnological product equipment extraction and purification processes.
- Biotechnological clean room equipment manager.
- Biotechnological process and service area supervisor.
- Biotechnological process safety supervisor.

The holder of this professional certificate has recognition of the basic level training in labour risk prevention, according to Annex IV of the Royal Decree 39/1997 of 17 of January approving the Labour Risks Prevention Act.

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.

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:

- 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 623/2013 of 2 August, establishing two professional certificates in the professional family Chemicals, which are included in the National Repertoire of Professional Certificates and update the professional certificates established in Appendices I, II, III and IV of Royal Decree 1970/2008 of 28 November, and as Appendices I and II of Royal Decree 1374/2008 of 1 August. (Appendix II, Code: QUIE0111)

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

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	640
Practical training at the workplace	11	80
Total duration of training leading to the certificate		720

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

