



Scientific Manufacture (QCF)

These QCF qualifications will provide recognition of the skills, competence and knowledge of individuals who work in a biomanufacturing environment.

Document detail:

Level 2 NVQ Diploma in Scientific Manufacture (QCF)

- Biotechnology Operations - 45 Credits
- Filling/Finishing Operations - 39 Credits

Level 3 NVQ Diploma in Scientific Manufacture (QCF)

- Biotechnology Processing - 46 Credits
- Filling/Finishing Processing - 48 Credits

Who are the Qualifications for:

These qualifications provide recognition of the skills and knowledge of individuals who work in a biomanufacturing environment. They cover health and safety; effective working relationships and following aseptic procedures. The Level 2 contains two Pathways; Biotechnology Operations and Filling/Finishing Operations and the Level 3 contains two Pathways; Biotechnology Processing and Filling/Finishing Processing.

NVQ Diploma in Scientific Manufacture (QCF)	Level 2
	600/0359/5
Last Registration Date	30 th June 2015
Last Certification Date	30 th June 2017

This qualification contains the following Pathways:

- **Biotechnology Operations Pathway:** 7 Units totalling a minimum of 45 Credits are required.
- **Filling/Finishing Operations Pathway:** 7 Units totalling a minimum of 39 Credits are required.

For both Pathways learners must complete 3 Common Mandatory Units and 4 Optional Units, 2 of which must be taken from Group 2.

Mandatory Units

- SCM2-001 Maintaining health and safety in a biomanufacturing environment - 5 Credits
 - SCM2-002 Maintaining effective and efficient biomanufacturing working relationships - 5 Credits
 - SCM2-003 Following aseptic procedures in a biomanufacturing environment - 8 Credits
-

Biotechnology Operations - Option Group 1

If learners choose the Biotechnology Operations Pathway they must achieve 4 Optional units; 2 Optional Units must be taken from Group 2.

- SCM2-004 Preparing the biomanufacturing area and process equipment - 7 Credits
- SCM2-005 Transferring materials in a biomanufacturing environment - 6 Credits
- SCM2-006 Measuring, weighing and preparing compounds and solutions for biomanufacturing use - 7 Credits
- SCM2-015 Assisting with the routine maintenance, cleaning, disinfecting and calibration of biomanufacturing equipment - 7 Credits
- SCM2-018 Carrying out sampling operations in a biomanufacturing environment - 5 Credits

Biotechnology Operations - Option Group 2

If learners choose the Biotechnology Operations Pathway they must achieve 4 Optional units; 2 Optional Units must be taken from Group 2.

- SCM2-007 Preparing culture media and solutions for biomanufacturing upstream processing - 9 Credits
 - SCM2-008 Producing biomaterial using bioreactors in biomanufacturing upstream processing - 8 Credits
 - SCM2-009 Harvesting biomaterial into sterile containers from a bioreactor for biomanufacturing downstream processing - 9 Credits
 - SCM2-010 Separating harvested biomaterial in biomanufacturing downstream processing using continuous flow centrifugation - 10 Credits
 - SCM2-011 Obtaining biomaterial in biomanufacturing downstream processing using lysis of cells - 9 Credits
 - SCM2-012 Separating harvested biomaterial in biomanufacturing downstream processing using normal filtration - 8 Credits
 - SCM2-013 Concentrating and diafiltrating harvested biomaterials in biomanufacturing downstream processing using tangential flow filtration (TFF) - 9 Credits
 - SCM2-014 Purifying harvested biomaterial in biomanufacturing downstream processing (DSP) using chromatography - 9 Credits
-

Filling/Finishing Operations - Option Group 1

If learners choose the Filling/Finishing Operations Pathway they must achieve 4 Optional units; 2 Optional Units must be taken from Group 2.

- SCM2-004 Preparing the biomanufacturing area and process equipment - 7 Credits
- SCM2-005 Transferring materials in a biomanufacturing environment - 6 Credits
- SCM2-006 Measuring, weighing and preparing compounds and solutions for biomanufacturing use - 7 Credits
- SCM2-018 Carrying out sampling operations in a biomanufacturing environment - 5 Credits

Filling/Finishing Operations - Option Group 2

If learners choose the Filling/Finishing Operations Pathway they must achieve 4 Optional units; 2 Optional Units must be taken from Group 2.

- SCM2-015 Assisting with the routine maintenance, cleaning, disinfecting and calibration of biomanufacturing equipment - 7 Credits
 - SCM2-016 Filling containers with processed biomaterials in secondary biomanufacturing operations using automated machinery - 5 Credits
 - SCM2-017 Packing filled biomaterial containers in secondary biomanufacturing operations by manual methods - 5 Credits
-

NVQ Diploma in Scientific Manufacture (OCF)	Level 3
	600/0128/8
Last Registration Date	30 th June 2015
Last Certification Date	30 th June 2018

This qualification contains the following Pathways:

- **Biotechnology Processing Pathway:** 8 Units totalling a minimum of 46 Credits are required.
- **Filling/Finishing Processing Pathway:** 8 Units totalling a minimum of 48 Credits are required.

For both Pathways learners must complete 3 Common Mandatory Units and 5 Optional Units, 2 of which must be taken from Group 1.

Mandatory Units

- SCM2-001 Maintaining health and safety in a biomanufacturing environment - 5 Credits
 - SCM2-002 Maintaining effective and efficient biomanufacturing working relationships - 5 Credits
 - SCM3-003 Monitoring and following aseptic procedures in a biomanufacturing environment - 12 Credits
-

Biotechnology Processing - Option Group 1

If learners choose the Biotechnology Processing Pathway they must achieve 5 Optional units; 2 Optional Units must be taken from Group 1.

- SCM3-004 Analysing and inputting biomanufacturing data in a Manufacturing Information Management System (MIMS) - 6 Credits
- SCM3-005 Providing leadership for a biomanufacturing team - 16 Credits
- SCM3-006 Encouraging problem solving and innovation in a biomanufacturing team - 16 Credits
- SCM3-007 Managing budgets for biomanufacturing projects - 8 Credits
- SCM4-014 Making biomanufacturing development/research presentations - 8 Credits

Biotechnology Processing - Option Group 2

If learners choose the Biotechnology Processing Pathway they must achieve 5 Optional units; 2 Optional Units must be taken from Group 1.

- SCM2-003 Following aseptic procedures in a biomanufacturing environment - 8 Credits
 - SCM3-011 Monitoring the preparation of culture media and solutions for biomanufacturing upstream processing - 6 Credits
 - SCM3-012 Monitoring the production of biomaterial using bioreactors in biomanufacturing upstream processing - 5 Credits
 - SCM3-013 Monitoring the harvesting of biomaterial into sterile containers from a bioreactor for biomanufacturing downstream processing - 5 Credits
 - SCM3-014 Monitoring the separation of harvested biomaterial for biomanufacturing downstream processing using continuous flow centrifugation - 3 Credits
 - SCM3-015 Monitoring the obtaining of biomaterial in biomanufacturing downstream processing using lysis of cells - 4 Credits
 - SCM3-016 Monitoring the separation of harvested biomaterial in biomanufacturing downstream processing using normal filtration - 3 Credits
 - SCM3-017 Monitoring the concentration and diafiltration of harvested biomaterial in downstream processing using tangential flow filtration (TFF) - 7 Credits
 - SCM3-018 Monitoring the purification of harvested biomaterial in biomanufacturing downstream processing using chromatography - 12 Credits
 - SCM3-019 Monitoring the routine maintenance, cleaning, disinfecting and calibration of biomanufacturing equipment - 7 Credits
-

Filling/Finishing Processing - Option Group 1

If learners choose the Filling/Finishing Processing Pathway they must achieve 5 Optional units; 2 Optional Units must be taken from Group 1.

- SCM3-004 Analysing and inputting biomanufacturing data in a Manufacturing Information Management System (MIMS) - 6 Credits
- SCM3-005 Providing leadership for a biomanufacturing team - 16 Credits
- SCM3-006 Encouraging problem solving and innovation in a biomanufacturing team - 16 Credits
- SCM3-007 Managing budgets for biomanufacturing projects - 8 Credits

Filling/Finishing Processing - Option Group 2

If learners choose the Filling/Finishing Processing Pathway they must achieve 5 Optional units; 2 Optional Units must be taken from Group 1.

- SCM2-003 Following aseptic procedures in a biomanufacturing environment - 8 Credits
 - SCM3-008 Monitoring preparation of the biomanufacturing area and filling equipment - 5 Credits
 - SCM3-009 Monitoring the transfer of materials in the biomanufacturing environment - 4 Credits
 - SCM3-010 Monitoring the measuring, weighing and preparation of compounds and solutions for biomanufacturing use - 18 Credits
 - SCM3-019 Monitoring the routine maintenance, cleaning, disinfecting and calibration of biomanufacturing equipment - 7 Credits
 - SCM3-020 Monitoring the filling of containers with processed biomaterials in secondary biomanufacturing operations using automated machinery - 4 Credits
 - SCM3-021 Monitoring the packing of filled biomaterial containers in secondary biomanufacturing operations by manual methods - 4 Credits
-