COGLATA2-11

Prepare new scientific or technical methods, resources and equipment for learning activities

Overview

This standard covers the competences you need to prepare new scientific or technical methods, resources and equipment for learning activities in accordance with approved procedures and practices.

You will be required to demonstrate that you can assist with the development and preparation of new scientific or technical methods, resources and equipment for use in new or modified learning activities in accordance with workplace procedures.

The activity is likely to be undertaken by someone in a science related work setting, including individuals working in hospitals, scientific laboratories, schools and universities.

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Performance criteria

You must be able to:

P1 ensure that your work is carried out in accordance with workplace procedures
P2 use safe practices and the appropriate personal protection equipment (PPE) when doing scientific or technical activities
P3 clarify the requirements of the new method, resources or equipment to be used with relevant people
P4 confirm that the new or modified method is appropriate and cost effective for the learning activity
P5 identify the resources and/or equipment required for the new or modified learning activity method
P6 assess and give advice on the hazards and risks associated with the preparation of the new or modified method
P7 test the procedure for the new or modified methods and record the results
P8 evaluate and modify the new or modified method in partnership with the relevant people
P9 work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
P10 communicate the required information about the work done, in accordance with departmental and organisational procedure

Knowledge and understanding

You need to know and understand:

K1 the health and safety requirements of the area in which you are carrying out the scientific or technical activities
K2 the implications of not taking account of legislation, regulations, standards and guidelines when conducting scientific or technical activities
K3 the scientific or technical techniques and processes you must use correctly in the workplace.
K4 the importance of wearing protective clothing, gloves and eye protection for scientific or technical activities
K5 the importance of correct identification, and any unique workplace coding system
K6 the lines of communication and responsibilities in your department, and their links with the rest of the organisation
K7 the limits of your own authority and to whom you should report if you have problems that you cannot resolve
K8 what are the basic techniques and scientific or technical knowledge required to prepare and test new or modified methods
K9 what types of scientific or technical methods can be prepared and tested
K10 what scientific or technical resources are required and available
K11 what learning activity constraints are in force
K12 what constitutes a scientific or technical hazard
K13 when and how to undertake a risk assessment
K14 how to test the new or modified scientific or technical method
K15 how to organise your work according to workplace deadlines
K16 how to record and evaluate the results of the new or modified scientific or technical method
K17 how to modify the scientific or technical method, and when this may be required
K18 what documentation should be used for new or modified learning activities

Scope/range

1. clarify the new or modified method with one of the following people:
1.1 supervisor
1.2 team leader
1.3 health and safety officer
1.4 manager
1.5 head of department
1.6 teacher or trainer

2. identify the requirements needed for one of the following new or modified learning activities:
2.1 timetabled lessons
2.2 other supervised events
2.3 outside activities

3. evaluate all of the following for the new or modified learning activities with relevant people:
3.1 equipment
3.2 costs
3.3 techniques
3.4 services (e.g. gas, electricity)
3.5 materials
3.6 hazards and risks
3.7 time required
3.8 procedures
3.9 learning outcomes

4. assess and give advice on three of the following hazards and risks:
4.1 harmful/toxic material
4.2 oxidising material
4.3 biohazard material
4.4 sensitising/irritant material
4.5 extreme temperature item
4.6 electrostatic discharge item
4.7 high voltage item
4.8 radioactive material
4.9 manual handling
4.10 highly flammable material
4.11 corrosive material

5. record and communicate details of work done, to the appropriate people, using:
5.1 verbal report plus one method from the following:
5.2 written or typed report
5.3 computer-based record
5.4 specific workplace documentation

5.5 electronic mail

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