SEMLATA3-04
Assess and communicate scientific or technical information to authorised personnel

Overview

This unit covers the competences you need to assess and communicate scientific or technical information to authorised personnel, in accordance with approved procedures and practices. You will be expected to identify and use relevant understanding, methods and skills to complete tasks and address problems that, whilst well defined, have a measure of complexity. You will be expected to initiate and complete tasks and procedures as well as exercise autonomy and judgement within limited parameters. You will also be aware of different perspectives or approaches used within the workplace.

On completion of workplace activities, you will be required to show you have addressed problems that, whilst well defined, may be complex and non-routine. You will be expected to show you have identified, selected and used appropriate scientific or technical skills, methods and procedures. You will use appropriate investigation to inform actions and review how effective these methods have been.

Your responsibilities will require you to comply with organisational policy and procedures for the scientific or technical operations undertaken, and to report any problems with the activities, materials or equipment that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be expected to initiate and complete tasks and procedures, including, where relevant, responsibility for supervising or guiding others. You will be expected to exercise autonomy and judgement within limited parameters, taking personal responsibility for your own actions and for the quality and accuracy of the work that you carry out. You will be expected to work to instructions, with a minimum of supervision, either on your own or as part of a team

Your underpinning knowledge will enable you to use factual, procedural and theoretical understanding to complete scientific or technical tasks and address problems that, whilst well defined, may be complex and non-routine. You will be able to interpret and evaluate relevant workplace information and ideas. You will have an understanding of the scientific or technical process used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities to the required specification.

You will understand the safety precautions required when carrying out scientific or technical activities. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

SEMLATA3-04
Assess and communicate scientific or technical information to authorised personnel

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 performing scientific or technical activities
P3 ensure the data integrity of the laboratory information system
P4 follow procedures correctly to ensure the security and confidentiality of laboratory information
P5 assess existing and record new information on the laboratory information system
P6 produce and distribute laboratory information system reports in accordance with procedures
P7 communicate the required information about the work done, in accordance with departmental and organisational procedures

SEMLATA3-04

Assess and communicate scientific or technical information to authorised personnel

Knowledge and understanding

You need to know and understand:

Sector specific

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

You need to know and understand:

Organisation specific

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 organisational policies that exist for the use and application of licensed computer software

K7 the organisational policies that exist for the use of anti-virus and anti-spy software protection

K8 the organisational policies that exist on data protection and the data protection act

K9 the organisational requirements for maintaining the security of the workplace (e.g. access or aseptic conditions)

K10 the lines of communication and responsibilities in your department, and their links with the rest of the organisation

K11 the limits of your own authority and to whom you should report if you have problems that you cannot resolve

You need to know and understand:

Equipment/Process specific

K12 the basic set-up and operation of the laboratory records system and the peripheral devices that are used (such as mouse, keyboard, VDU, printer and barcode reader)

K13 the correct startup and shutdown procedures to be used for the computer system

K14 how to access the computer information database and the use of software manuals and related documents to aid efficient operation of the relevant scientific or technical records

K15 how to deal with system problems (such as error messages received, peripherals which do not respond as expected, obvious faults with the equipment or connecting leads)

K16 how to access and communicate data effectively, and how to identify

key information when recording and forwarding messages accurately

K17 where to obtain the information that you need to carry out your job, the form in which the information is expressed and why it should be up to date

K18 the different forms of communication available to you, and how they are used

K19 why it is important to communicate clearly and to give all of the information necessary to the audience

K20 the organisational and/or workplace procedures for acknowledging and responding to incoming and outgoing information

K21 the organisational and/or workplace procedures for recording scientific or technical information

K22 the document control and reporting procedures that should be used

K23 the reasons why effective communication is important, and the methods used for communicating effectively

SEMLATA3-04

Assess and communicate scientific or technical information to authorised personnel

Additional Information

Scope/range related to performance criteria

You must be able to:

1. search and access data from the information system for three of the following:
   - 1.1 test/sample information
   - 1.2 output quality information
   - 1.3 work delivery information
   - 1.4 process information
   - 1.5 cost/budget information
   - 1.6 other (please specify)
2. communicate scientific or technical information to **three** of the following customers:
   - 2.1 other department
   - 2.2 team members
   - 2.3 other (please specify)
   - 2.4 technical expert
   - 2.5 external organisation
3. communicate **four** of the following types of information:
   - 3.1 instructions
   - 3.2 progress/analysis report
   - 3.3 services available
   - 3.4 test results
   - 3.5 work requirements
   - 3.6 other (please specify)
4. ensure the integrity of the laboratory information system by **all** of the following:
   - 4.1 using the correct startup/shutdown procedures
   - 4.2 information is passed to authorised people only
   - 4.3 following good practice for logging on/off
   - 4.4 following anti-virus protocols
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

SEMLATA3-04

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