

T Level Technical Qualification in Healthcare Science

Occupational specialism assessment (OSA)

Assisting with Healthcare Science

All assignments

Provider guide

v1.1: Additional sample material
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Provider guide

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Document security

To be opened on **[day of the week] [date] [month] [year]** at **9:00am**, X months prior to the assessment period from **[day of the week] [date] [month] [year]** to **[day of the week] [date] [month] [year]**.

This assessment material must not be shared with students. Any breach of this assessment material must be reported to NCFE immediately in accordance with the assessment regulations found at:

<https://www.ncfe.org.uk/qualifications/centre-assessment-support/regulations-guides/>

Paper number

[paper number]

SAMPLE

Introduction

This Assisting with Healthcare Science occupational specialism is assessed synoptically with a suite of 4 assignments. The assignments require the student to independently apply an appropriate selection of knowledge, understanding, skills and techniques developed throughout the full course of study, in response to briefs or tasks, or as part of their industry placement. This will allow the student to demonstrate that they have met a level of threshold competence in the performance outcomes (POs) of the occupational specialism.

The assessment methods vary across the assignments to allow students to demonstrate the knowledge and skills they have acquired throughout their learning and experience.

The assessments' validly and reliably allow the student to be able to demonstrate, at the end of the qualification, the threshold competency gained in order to progress into employment or into higher education.

NCFE provides instructions for each of the assessments and these must be followed by T Level providers.

Essential resources for each assessment, where applicable, must be purchased by the provider prior to the assessments taking place.

The synoptic assessment for this occupational specialism is graded pass, merit or distinction, and the final grade will contribute 54% of the overall technical qualification grade, so it is important that students have the opportunity to produce work of the highest standard they can. The assignments within this synoptic assessment are designed to allow the student to do this in a way that is as occupationally authentic to the roles that they may take on in future employment.

What is threshold competence?

'Threshold competence' is defined as a level of competence that:

- (a) signifies that a student is well-placed to develop full occupational competence, with further support and development, once in employment
- (b) is as close to full occupational competence as can be reasonably expected of a student studying the technical qualification in a college-based setting with a substantial industry placement
- (c) signifies that a student has achieved the level for a pass in relation to the relevant occupational specialism component

What is synoptic assessment?

A synoptic assessment is a form of assessment in which students are required to demonstrate that they can identify and use in an integrated way an appropriate selection of skills, techniques, concepts, theories, and knowledge from across the technical area, relevant to the tasks.

Synoptic assessment is integral to high-quality technical qualifications to allow students to demonstrate a holistic understanding of the sector, making effective connections between different aspects of the subject content.

The assignments and tasks in this assessment are designed to be synoptic in a way that is as occupationally realistic as possible.

How will students be assessed?

Students will be assessed against the following set of POs that describe what the student should be able to do:

Assisting with Healthcare Science POs	
PO1	Contribute to patient care by supporting physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in diagnosis and treatment.
PO2	Contribute to patient care by supporting the collection of a range of specimens for analysis to aid diagnosis and treatment.
PO3	Contribute to patient care by processing and analysing service user specimens in a range of life science areas and laboratory environments to produce reliable data sets for use by healthcare professionals in diagnosis and treatment.

The synoptic assessment consists of 4 assignments covering the following areas:

1. Observation of physiological measurement skills.
2. Observation of specimen collection and point of care testing (POCT) skills.
3. Observation of microscopy and specimen analysis skills.
4. Analysis and evaluation through extended written responses.

Assignments are broken down into tasks where necessary. The assignments, tasks, and further guidance (within this document) for students and tutors show how the assignments are expected to be delivered.

Evidence produced by students for the assignments will be sent to NCFE for marking. Assessment judgements, including overall judgement of the performance required at each of the grade boundaries, will be made by NCFE and results released to the provider at the appropriate time.

Assignment coverage

Please see the assignment coverage table section, which shows how the PO content is covered by the assignments and tasks.

Marks

Marks available for each assignment are detailed below.

Assignment		Marks	% weightings
1	Observation of physiological measurement skills	77	27%
2	Observation of specimen collection and point of care testing (POCT) skills	100	20%
3	Observation of microscopy and specimen analysis skills	94	26%
4	Analysis and evaluation through extended written responses	80	27%
Total		351 marks*	100%

*The raw marks will be scaled to ensure that the intended weightings of each assignment are met. The scaling factors for each assignment can be found in the qualification specification.

Assessment windows and dates

Assignment 1 consists of a single direct observation of skills, which will take place at the provider. Assignment 1 will be available to the provider as an assessment sat during a window, set between 1 March and 30 April each year.

A submission deadline for the evidence for assignment 1 will be set for each academic year to allow NCFE to carry out remote moderation and awarding before the release of results in August of that year.

Assignment 2 consists of a single direct observation of skills, which will take place at the provider. Assignment 2 will be available to the provider as an assessment sat during a window, set between 1 March and 30 April each year.

A submission deadline for the evidence for assignment 2 will be set for each academic year to allow NCFE to carry out remote moderation and awarding before the release of results in August of that year.

Assignment 3 consists of a single direct observation of skills, which will take place at the provider. Assignment 3 will be available to the provider as an assessment sat during a window, set between 1 March and 30 April each year.

A submission deadline for the evidence for assignment 3 will be set for each academic year to allow NCFE to carry out remote moderation and awarding before the release of results in August of that year.

Assignment 4 will be available as a dated assessment, set between 1 March and 30 April each year at a time set by NCFE. All students must sit the assignment on this date at the same time. Evidence for assignment 4 must be returned to NCFE for marking after completion.

All evidence created, generated and recorded for these assignments is subject to data protection rules, and information should be anonymised to protect the rights of individuals where relevant.

General

The term 'synoptic assessment' refers to the combination of the 4 assignments in this occupational specialism.

The term 'assessment' is used in the same way as 'assignment' but will often refer to specific properties of the assignment.

SAMPLE

Guidance for tutors

The following synoptic assessment, comprised of 4 assignments, has been designed to test to what extent a student can meet the skills and underpinning knowledge required to achieve threshold competence as a healthcare science assistant.

The guidance below explains the nature and purpose of this assessment and should be used alongside the general guidance provided in this document, the qualification specification and live assessment materials (once available).

This assessment consists of:

- assignment 1: observation of physiological measurement skills
 - task 1: assist with physiological measurements
- assignment 2: observation of specimen collection and point of care testing (POCT) skills
 - task 1: assist with specimen collection and point of care test (POCT)
 - task 2: carry out point of care test (POCT)
- assignment 3: observation of microscopy and specimen analysis skills
 - task 1: microscopy – Giemsa stain
 - task 2: specimen analysis – blood
- assignment 4: analysis and evaluation through extended written responses

This synoptic assessment must be completed for a student to achieve the T Level Technical Qualification in Healthcare Science with the Assisting with Healthcare Science occupational specialism.

Purpose

Assignment 1 is designed to assess important aspects of a student's achievement. It assesses the student's level of attainment against the important skills in performance outcome (PO) 1 of this technical qualification, and contributes, along with assignments 2, 3 and 4, to the student's overall grade.

Provider-appointed assessors

Each provider-appointed assessor should be qualified to the level of the qualification they are assessing or above and have been trained and standardised as per the requirements of the technical qualification.

Remote moderation and the recording of observations

Assignments 1, 2 and 3 are marked by the provider, and moderated remotely by NCFE. These are detailed below.

Moderators will access students' evidence for each of the above assignments as well as an audio/visual recording of the observation in order to carry out moderation activities. The moderator will make assessment judgements, including the allocation of marks for each of assignments 1, 2 and 3, using the same methods as the provider. All records and findings will be documented separately to the provider's assessor, to ensure that the 2 sets of findings can be reliably compared.

In addition, moderators will also review records of observations taken by the provider during the visit to ensure that sufficient detail is being captured to support robust and reliable remote moderation and review of assessment.

NCFE will deliver standardisation sessions for approved providers, to establish a consistent standard for the assessment per series. In each session, the same materials will be used by the providers and the moderation team, which will ensure the same standard is applied uniformly.

Record keeping will also be a factor when ensuring sufficient quality in approved provider marking. It is critically important that the assessor summarises what they have observed in relation to the criteria and guidance provided in the observation form. If there is no summary present, or if the summary lacks sufficient detail, then there will effectively be no record of evidence. The provider would therefore be required to observe the student again. The training and guidance that providers receive will reflect this accordingly.

Assignments 1, 2 and 3 are moderated by NCFE to ensure that the provider-appointed assessor's marking judgements are in line with the NCFE visiting assessor, based on a sample of the criteria.

NCFE moderators will remotely moderate a sample of observations carried out by the provider-appointed assessors, during the **[date] [month]** to **[date] [month]** delivery window. The observations they view will be selected by NCFE, based on the provider's observations plan, and in line with an appropriate sampling strategy. It is therefore vitally important that evidence is submitted to NCFE within **[days]** of the planned observation so that moderators can plan and be allocated to these.

The moderator will ensure that all observations are moderated across the sample.

Following moderation, the moderator will record their marks for the sample of students. There will be 3 potential outcomes from this activity:

- the moderator and provider marks are within a tolerance, in this case, all of the provider's marks would be accepted with no further action required
- the moderator and provider marks are out of tolerance, but in a consistent way (for example, they are all too lenient, or they are all too strict); in this case, a calculation would be applied to compare the provider's and moderator's marks in order to determine the required adjustment for each student. This adjustment will then be applied to all students in the cohort
- the moderator and provider marks are out of tolerance, but not in a consistent way that can be safely adjusted; in this case, additional support will be made available to the provider and all student evidence will need to be reassessed and moderated

Planning and recording forms

This pack includes the mandatory forms which must be used by providers to gather evidence for each of assignments 1, 2 and 3, to make final marking decisions.

All mandatory forms and final marks must be submitted to NCFE by the submission deadline in the final year of the T Level qualification.

Observations for assessment should not take place until the provider is confident that the student will be able to show an appropriate level of achievement during the observation and must be scheduled into the appropriate window as set by NCFE.

The forms are listed below, with guidance on their use.

Observation planning form (appendix 1)

This form should be used to plan the observations the assessor will make for the student on each applicable assignment. This form will detail the date of the observations and the intended assignment to be observed.

This form must be shared with the student prior to the structured observations taking place.

Observation record forms (appendix 2 – exemplar from assignment 1)

An observation record form will be available and tailored to each task within the assignment. This form should be used to make a narrative record of each observed assignment conducted by the assessor. Each observation form must be completed accurately. The observation narrative must be linked to the specific criteria in the form.

Criteria assessor judgement guidance and assessment justification

These forms must be used to capture a marking judgement for each criterion, for the observation, with a justification linking back to the relevant evidence on the observation record form. These forms should be completed after each observation.

Final mark form (appendix 3)

This form must be used to capture a final mark for the assignment. This form should be completed after the observation. There will be a deadline in the final year of each student's T Level qualification for these final marks to be submitted.

Resources and equipment

The resources required for each practical skills assignment will be available in the specific guidance for each assignment in this document. These requirements will be in line with the resources specified in the qualification specification and as such, students should be familiar with these as they should be used during the delivery of the qualification.

Standardisation of patients and practitioners

The practical skills assignments require specific roles to be filled as part of a role-play activity that sits outside of the responsibility of the assessor and student. These roles must be fulfilled by provider staff. As part of the preparation for the delivery of these practical skills assignments, providers must ensure that those playing the roles of patients or practitioners are familiar with the specifics of the roles outlined in the assessment materials and any supporting documents, such as the patient health form (actor script). The role of a standardised patient (SP) is to independently and accurately convey details of the patient's life in an appropriate and consistent manner.

NCFE recommend that providers research the principles of good practice in presenting simulated patients, reading around the subject, for example, Simulated Patient Handbook, A Comprehensive Guide for Facilitators and Simulated Patients by Fiona Dudley. NCFE will also provide training on delivery to support consistency of delivery and provide series-specific guidance.

Members of staff who take on the role should ensure they have the appropriate level of subject knowledge to understand the nature and complexity of the role.

They will be expected to:

- access and apply information from the training provided by NCFE

- deeply engage with the patient's details (although the SPs/role players are permitted to have the appropriate notes with them to refer to during the practical activity scenario)
- remain in a specific patient character when responding to student questions
- play the role in a convincing but not melodramatic manner, being mindful of facial expression
- check that language used is appropriate for a typical patient (such as not overly medicalised)
- refrain from embellishing the condition or other medical considerations in a misleading way
- play the role consistently so that every student's experience will be the same
- repeat aspects that the student has not understood and be prepared to alter the wording slightly if they continue to fail to be understood, but not radically, so not to advantage that student in comparison to other students
- avoid tips or prompts that make the assessment less challenging
- give information but only in response to appropriate prompting

Where specific practitioner roles are required and where a combination of student performance and mark scheme allows, input may be required during the observation of practical skills. Persons playing the role must be aware of when they would be expected to step in to support the student against specific steps or criteria. It is therefore critical that students are given sufficient time to attempt or complete the relevant stage before either requesting further support from the practitioner or appropriate intervention being required as part of the process, as intervention can impact on the number of marks that can be awarded to students for each task part and in some cases may lead to students being awarded 0 marks for specific criteria (for example, when the level of support students require goes beyond the level stated in the lower bands).

The purpose of intervention is so that students are not disadvantaged from accessing marks further along the assessment by completing an action that would either prevent them from continuing with a process or procedure, or otherwise be prevented from doing so when being supported by the relevant practitioner in the workplace. Additionally, if students appear to be causing a health and safety risk as a result of their actions, then the assessment must be stopped.

The use of patient record forms will support the assignments and, with the standard expectation of the actors for role plays, will facilitate a consistent approach across providers. The patient health forms with scripts should not be shared with students, but actors should use this information to inform their role play.

Assignment specific guidance – assignment 1

Brief

You are working as a healthcare science assistant within a cardiology unit of a hospital. Your next patient has arrived. The patient is an elderly gentleman who has been complaining of chest pain. This pain is reducing his ability to take part in the activities he enjoys. Due to the limited size of his GP surgery, he has been referred for further investigations within your unit after having a blood test that indicated possible angina. The patient has difficulty with mobility but is independent.

Task 1: assist with physiological measurements

You must assist with the assessment of the patient by completing the following:

- 1(a) Prepare for pulse oximeter, blood pressure, and electrocardiogram (ECG) measurements including record keeping.
- 1(b)(i) Perform and record pulse oximeter measurement.
- 1(b)(ii) Carry out a manual blood pressure measurement on the patient and update patient records.
- 1(b)(iii) Assist the practitioner **and** perform the ECG measurement on the patient and update patient records.
- 1(c) Carry out post-measurement cleaning and storage of equipment.

Available marks

The marks available for this assignment can be found underneath each brief (where relevant) and the task information within the assignment brief. The maximum number of marks available for this assignment is 77.

Equipment and resources

The following equipment and resources will be required for this assessment:

- a simulated room set up as a ward/cardiology unit:
 - patient chair
 - table for equipment and doctors' notes
 - clinical bed
 - privacy curtain
 - hand wash basin
- a person enacting the role of the patient (for ECG in terms of verbal response and communication only)
- manikin (for student to demonstrate the ECG task)
- a person enacting the role of the practitioner
- pulse oximeter
- manual blood pressure measurer (sphygmomanometer)
- a range of cuff sizes for the sphygmomanometer
- cuff connectors stored in equipment tray

- bulb to attach to cuff
- stethoscope including a range of earpieces
- electrodes and pads to place on patients – these may or may not be attached to the leads depending on the ECG machine
- ECG machine (with leads attached depending on the ECG machine) – this will need connection to a socket unless it is portable and should be noted by each centre setting up for the exam
- personal protective equipment (PPE) including aprons, masks and gloves
- bed roll, paper towels and disinfectant to clean and hand sanitiser
- clinic waste bin for waste with clear notice that waste will be incinerated
- paper-based patient record system
- patient details form (below)

Assessment delivery guidance

Students should:

- be given sufficient time to read through the assignment brief prior to commencement of the assessment
- be directed to the assessment area where the practitioner will read out the assignment brief and task information
- be made aware when the assessment will begin
- be asked to prepare for the next patient and the practitioner will provide the student with the patient details form
- be made aware that once task 1(a) has been completed, the patient will enter the room and the assessment will continue until complete
- be given 1 hour to complete the task

Patient details form

Confidential patient record form

Important note: N/A

Name	Jeremy Hughes
Date of birth	26/09/1950
Home address	122 The Road Solihull Birmingham B12 8PH
Telephone number	0123 455 6677
NHS number	428 669 8215
Hospital number	0121 424 2000
Religion	Christian
Next of kin	Dorothy Hughes – wife
Name of GP	Dr Kira James
Medical history	<p>Jeremy has had a good health majority of his life with only a couple of previous conditions:</p> <ul style="list-style-type: none">• kidney stone when he was 48, which was removed by surgery• falling from a ladder in 2001, he spent a week in hospital and has had some difficulty related to this <p>Jeremy has been having recent pains within his chest and often feels it is difficult to breathe, especially in the morning.</p>
Long-term conditions	Walking difficulty, relating to the injury in 2001.

Medication	No prescribed medication. Supplements daily including multi-vitamins, cod liver oil capsules.		
Allergies	Cat hair		
Details of pre-elective surgery			
Reason for required measurements	Diagnostic (possible angina)		
Measurement required	Date	Time	Result
Blood pressure			
Blood oxygen			
Electrocardiogram (ECG)			For doctor use only

Patient health form actor script

Confidential patient record form (actor version)

Important note: N/A

Name	Jeremy Hughes
Date of birth	26/09/1950
Home address	122 The Road Solihull Birmingham B12 8PH
Telephone number	0123 455 6677
NHS number	428 669 8215
Hospital number	0121 424 2000
Religion	Christian
Next of kin	Dorothy Hughes – wife
Name of GP	Dr Kira James
Medical history	<p>Due to his age, and damage to his leg from a fall in 2001, Jeremy has had difficulty walking and can find it uncomfortable.</p> <p>Usually, he is fine to walk on his own, but on rare occasions he is very weak and fatigued and will use a walking stick or his wife's walking frame, if necessary, but this is rare.</p> <p>He has some chest pains chest and often feels it is difficult to breathe, especially in the morning.</p> <p>Because of this he would move slowly and cautiously around the ward and should not be rushed.</p>
Long-term conditions	Walking difficulty, relating to the injury in 2001.

Medication	No prescribed medication. Supplements daily including multivitamins, cod liver oil capsules.
Allergies	Cat hair
Notes	For the ECG task the role play model is not required to undress. However, the student must instruct the patient to do so. Once the student has adequately explained what they require the patient to do you can acknowledge them and ask them to continue using the manikin already on the bed. From this point onwards you will be the voice only for the ECG patient. The student will complete all practical elements on the manikin.

SAMPLE

Assignment specific guidance – assignment 2

Brief

A 52-year-old individual attends their walk-in clinic presenting with frequency of passing urine. They are obese and have type 2 diabetes that is managed through diet. The doctor requests a midstream urine sample for multi-dipstick testing by the healthcare science assistant. The urine should also be forwarded to the laboratory for culture and sensitivity testing to eliminate a urinary tract infection. Upon testing, the healthcare science assistant notices the glucose result is abnormal and informs the doctor. The doctor requests an immediate glucose point of care test (POCT), which the healthcare science assistant arranges and performs on the patient.

You must carry out glucose level testing on the patient's urine sample and collect and prepare a second sample for further analysis by the laboratory team.

Task 1: assist with specimen collection and point of care test (POCT)

You must assist by carrying out the following stages:

1(a) Prepare for specimen collection.

1(b)(i) Complete urine specimen collection for glucose testing, to include:

- label and register patient samples.

1(b)(ii) Complete a urine dipstick test for glucose. Prepare documentation and package a second sample for transport, dispatch to microbiology laboratory for testing.

1(c) Record and report the results (using the image provided by the assessor) and carry out post-examination cleaning and storage of equipment.

Brief

The doctor has additionally requested that the patient be issued with a glucose meter so that they can track their blood glucose levels and keep a record of these in a logbook.

Task 2: carry out point of care test (POCT)

You must demonstrate how to carry out glucose level testing on the patient's blood sample using a finger prick collection method and glucose meter. You must also demonstrate how to record the results and explain to the patient the need to regularly test and record all tests for their blood glucose levels.

You must assist by carrying out the following stages:

2(a) Prepare for finger prick blood glucose test, including explaining the procedure to the patient.

2(b) Carry out the finger prick blood glucose test.

2(c) Record and report the results and carry out post-examination cleaning and storage of equipment.

Available marks

The marks available for this assignment can be found underneath each brief (where relevant) and the task information within the assignment brief. The maximum number of marks available for this assignment is 100.

Equipment and resources

- a simulated consultation room to include:
 - a simulated patient toilet area in a separate room
 - hand wash basin
 - desk with 2 chairs
 - table for sample analysis
 - pen
 - desktop computer for electronic records or print outs of patient record forms if using a hard copy version
 - a clock/timer/stopwatch
- a person enacting the role of the patient for each task
- access to drinking facilities or access to drinking water (such as provided by jug or cup from the student) to facilitate with dehydration and liquid intake for urine collection
- PPE including aprons, masks, safety glasses (dipstick testing) and gloves
- midstream urine collection kit including 2 containers (1 plain sterile universal container, 1 boric acid sterile universal container)
- point of care test (POCT) kit (urine dipstick) with correct storage facilities and instructions for use
- disinfection cleansing wipes
- specified simulated urine liquid high in glucose (apple juice), given to the patient prior to commencement of the assessment
- specimen labels and specimen transport bags
- a simulated designated area where samples are placed into a transport box to be sent to the laboratory at a designated time (note after designated time, samples need to be placed into the fridge until next collection)
- blood glucose POCT device including glucose strips, calibrator strip (if appropriate), quality control, quality control record book and standard operating procedure (SOP):
 - image of POCT device showing final result as provided by NCFE
 - SOP document (Additional Sample - AHCS - Assignment 2 Standard Operating Procedures) will require device specific amendments to all sections highlighted in red prior to the assessment to ensure it matches the device supplied to students by the provider
- blood glucose POCT device working instructions (**provider to supply relevant version to device used***)
- a blood glucose POCT finger prosthesis (lance) contained with simulated blood material with high level of glucose, given to the patient prior to commencement of the assessment and placed on their preferred finger
- appropriate lance
- sharps box and cotton wool balls
- bed roll, paper towels and disinfectant to clean area and hand sanitiser
- clinical waste bin for waste to be incinerated
- clip board and pen to hold patient form and record results

Providers must ensure that a basic set of working instructions are provided to students alongside the device. These should be developed based on the manufacturer's instructions for that device.

To support a realistic working environment, the following should also be made available in the assessment area:

- ketone meter
- instructions for a different POCT device
- ketone strips
- alcohol wipes
- general outpatient afternoon clinic list (provided by NCFE)
- additional clinical waste streams to assess students' ability to select the correct one

Assessment delivery guidance

- students should be given sufficient time to read through the assignment brief prior to commencement of the assessment
- students should then be directed to the assessment area where the practitioner will read out the assignment brief and task information
- the student will be directed to the area that contains all available resources, including specimen transport area
- once preparations for each task have been observed, the patient will enter the room and the assessment will continue until completion
- students will be given a total of 55 minutes to complete this assessment, comprised of 30 minutes for task 1 and 25 minutes for task 2
- the SOP document (Additional Sample - AHCS - Assignment 2 Standard Operating Procedures) will require device specific amendments to all sections highlighted in red prior to the assessment to ensure it matches the device supplied to students by the provider

General outpatient afternoon clinic list

ROOM	CLINIC	CONSULTANT LEAD
4	DIABETIC RENTINOPATHY	Mr Mahmood
5	DIABETIC RENTINOPATHY	Mr Mahmood
6	RENAL/UROLOGY	Mr Stones
7	RENAL/UROLOGY	Mr Stones
8	AUDIOLOGY	Mrs Jones
9	AUDIOLOGY	Mrs Jones
10	DIABETES	Mr Glover
11	DIABETES	Mr Glover
12	ENDOCRINOLOGY	Dr Robinson
13	ENDOCRINOLOGY	Dr Robinson

Patient details form – assignment 2

Confidential patient record form

Surname	Cole
Forename	Deborah (Debbie) Georgina
Date of birth	23/08/1970
Home address	2 Gold Road Swaythling Southampton
Hospital number	857224
NHS number	234 094 1256
Next of kin	Paula James – sister
Name of GP	Dr Sanjay Patel
Medical history	<p>Fractured her tibia when she was 5, which has since healed.</p> <p>Prescribed antibiotics (azithromycin) in 2018 for a bacterial infection in her respiratory system.</p> <p>Diagnosed with Type 2 diabetes in 2013, which she has been controlling with her diet since.</p> <p>Debbie has recently been drinking excess water and urinating more frequently. She has also felt more tired recently and states that it affects her doing her 'normal' daily routine and activities.</p>
Medication	None
Allergies	Penicillin

Measurement required	Date	Time	Result
Glucose test (urine)			
Blood glucose test			

SAMPLE

Patient health form actor script – assignment 2

Confidential patient record form (actor version)

Surname	Cole
Forename	Deborah (Debbie) Georgina
Date of birth	23 August 1970
Home address	2 Gold Road Swaythling Southampton
Hospital number	857224
NHS number	234 094 1256
Next of kin	Paula James – sister
Name of GP	Dr Sanjay Patel
Clinical details	<p>Fractured her tibia when she was 5, which has since healed.</p> <p>Prescribed antibiotics (Azithromycin) in 2018 for a bacterial infection in her Respiratory system</p> <p>Diagnosed with Type II diabetes in 2013, which she has been controlling with her diet since.</p> <p>Debbie has recently been drinking excess water and urinating more frequently. She has also felt more tired recently and states that it affects her doing her 'normal' daily routine and activities.</p>
Medication	None
Allergies	Penicillin
Notes	<p>Actor would need to play Debbie as an obese 52-year-old woman, considering carefully with respect and dignity what physiological features she may display, such as easily getting out of breath, needing to rest and sit more regularly and other characteristics related to her obesity.</p>





Due to increased water intake she may request a drink.

Deborah is divorced and is a confident lady, which should be reflected by the actor playing this role.

SAMPLE

Task 1: POCT urine analysis test

Test packaging

Test	Results				
Urine Glucose	 neg.	 +100(5.5)	 +250(14)	 ++500(28)	 ++1000(55)

Dipstick result



Task 2: POCT blood glucose results





Hospital request: microbiology

Important: please complete all relevant sections

Surname		Date of birth		Consultant/GP	
Forename		Hospital number		Phone/bleep number	
Address		NHS number		Signature	
Postcode		MALE/FEMALE		Ward	
Specimen type		NHS/PRIVATE		Time of specimen	
Tests required					
Clinical details	<p>Previous/current/intended antibiotic therapy? Yes/No Please state:</p>				

Assignment specific guidance – assignment 3

Brief

Location: haematology laboratory

You are supporting a biomedical scientist (BMS) with analysing a patient's whole blood sample that has arrived from one of the wards. You need to analyse the percentage, volume and number of blood cells from the sample and relay this information to the biomedical scientist.

Task 1: microscopy – Giemsa stain

1(a): complete preparation to carry out a Giemsa stain method on blood (including the work area and self).

1(b): produce microscope slides with a blood film of the sample blood.

1(c): complete a stain method on the blood slides using Giemsa stain and accurately record the percentage of cell types within the sample. A control slide of whole blood has been provided to you for you to refer to.

1(d): dispose of materials and samples appropriately, and clean equipment and work area.

Student instructions

Following the quality control (QC) confirmation of your Giemsa stain using the microscope as part of task 1(c), you must notify the biomedical scientist and explain how you have completed the control Giemsa stain prior to commencing task 1(d).

Brief

Location: haematology laboratory

You are given a patient's blood sample. The biomedical scientist asks you to analyse the patient's blood by performing a cell count on **only** the white blood cells (WBCs) in this sample.

Task 2: specimen analysis – blood

The biomedical scientist has asked you to confirm the number of white blood cells in the sample.

2(a) prepare the work area and self for carrying out cell counting of WBCs.

2(b) separate the blood sample into its components using centrifugation and aliquot a chosen volume of WBCs from the sample.

2(c) using a haemocytometer, count the WBCs within a selected volume of blood:

- follow the standard operating procedure (SOP)
- confirm the specimen is ready for analysis
- discuss the process you went through with the biomedical scientist

2(d) carry out post-analysis activities, including:

- sample storage
- equipment cleaning
- waste disposal

- decontamination of work area

Student instructions

You must log the samples and test results into the laboratory information management system (LIMS).

Available marks

The marks available for this assignment can be found underneath each brief (where relevant) and the task information within the assignment brief. The maximum number of marks available for this assignment is 94.

Equipment and resources

General

- a simulated laboratory with mains power socket
- clear work benches
- cleaning solution/wipes/cloths for the benches
- personal protective equipment (PPE) including aprons, laboratory coats, safety spectacles/goggles, and gloves
- clinical waste bin
- glass/plastic jar for tip disposal
- sharps bin
- hand washing facilities
- decontamination tools and materials
- clock or timer

Microscopy task

- microscope slides with and without spaces for labelling
- microscope slide racks (ideal but not essential)
- reagent trough or other suitable container such as appropriate beakers/glassware or a Coplin jar
- tally counters
- timer/stopwatch (multiple)
- methanol
- prepared Giemsa stain ready to use
- deionised/distilled water
- dropper bottles labelled with concentrations for stains/alcohol
- pre-prepared slides of whole blood smear with a Giemsa stain for the students to use as a control (these should be labelled as 'Control slide')
- pen
- disposal point to include correct disposal tubs/bins/bags for waste, glass, and contaminated materials

- Pasteur pipettes
- blood sample – must be mammalian
- anticoagulant to be added to the blood
- light microscopes with multiple objective lenses
- computer with spreadsheets to input patient details and result

Blood analysis task

- a person enacting the role of a biomedical scientist
- 2 specified simulated blood samples (must be mammalian) in tubes sealed in transport bags
- WBC diluent solution containing glacial acetic acid and gentian violet
- test tubes
- Pasteur pipettes/automatic pipette and tips
- centrifuge
- centrifuge tubes
- micropipettes (P20s and P100s would be most suitable)
- micropipette tips to match the above micropipettes
- labels
- container/tube for aliquots (recommended these be Eppendorf tubes, which would need Eppendorf holders)
- haemocytometer
- crystal violet stain
- calculators

Assessment delivery guidance

- students should be given sufficient time to read through the assignment brief prior to commencement of the assessment
- students should then be directed to the assessment area where the practitioner will read out the assignment brief and task information
- the student will be shown all available resources listed in the equipment and resources section
- the student will have a total of 2 hours 30 minutes to complete this assignment to include 1 hour for task 1 and 1 hour and 30 minutes for task 2

Analysis request form – task 2

Specimen type	External	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	<input type="checkbox"/>
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Patient details					
Name	Joe Henry Bloggs				
Address	23 Arcadia Avenue, Jesmond, Newcastle, NE1 1NE				
DOB	12/10/1974				
Patient NHS number	NHS001				
Flag					
Routine	<input type="checkbox"/>	Urgent	<input checked="" type="checkbox"/>	Cancer pathway	<input type="checkbox"/>

Task					
Analyse bacterial culture	<input type="checkbox"/>	Analyse urine sample	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyse blood sample	<input checked="" type="checkbox"/>				

Clinical indication	
----------------------------	--

Lab test					
Bacterial culture	<input type="checkbox"/>	Gram stain	<input type="checkbox"/>	MRSA test	<input type="checkbox"/>
ELISA	<input type="checkbox"/>	H&E staining	<input type="checkbox"/>	PAP test	<input type="checkbox"/>
Immunochemistry	<input type="checkbox"/>				

Source					
Blood sample	<input checked="" type="checkbox"/>	Lung biopsy	<input type="checkbox"/>	Sputum	<input type="checkbox"/>
Cervical smear	<input type="checkbox"/>	Swab	<input type="checkbox"/>	Stool sample	<input type="checkbox"/>
Skin punch biopsy	<input type="checkbox"/>				

Source site	Left upper arm
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Collector name	Dr M Morgan	Collection date	10/8/23	Collection time	9:30am
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Collection department					
A&E	<input type="checkbox"/>	Outpatients	<input type="checkbox"/>	Ward 1a	<input type="checkbox"/>
Endoscopy	<input checked="" type="checkbox"/>	Pre-op theatre	<input type="checkbox"/>	Ward 1b	<input type="checkbox"/>
GP	<input type="checkbox"/>				

Name	Dr M Morgan
Signature	M Morgan

Assignment specific guidance – assignment 4

Assessment delivery guidance

The purpose of the extended written response element of the occupational specialism (OS) is to ensure that students have the opportunity to apply their core knowledge and skills as well as the key skills from a range of areas across the OS content.

The extended written response assessment, whilst not a 'practical' assessment in the sense of a 'show how' performance, is 'practical' in the sense of a 'knows how to' performance. It is a written simulation, testing students' breadth and depth of knowledge and skills across the performance outcomes (POs) in an authentic, occupationally relevant way, with focus on the application of students' knowledge, understanding and skills.

Students will be provided with an assignment brief that includes scenarios, information and resources to support the completion of the assessment. Students will be required to apply their knowledge and skills when considering multiple aspects of information when responding to each task.

Students will be given 2 hours to complete this assignment.

Assessment conditions

Students must complete the extended written response assessment independently and under supervised conditions.

Students and tutors are required to sign declarations of authenticity to confirm that the work is their/the student's own. The declaration forms can be found on the NCFE website. This is to ensure authenticity and to prevent potential malpractice and maladministration. Students must be made aware of the importance of this declaration and the impact this could have on their overall grade if the evidence was found not to be the students' own work.

Some of the tasks may require students to refer to information from a range of sources, such as tables of data, to use as references or as part of calculations to support their knowledge and understanding or to justify their responses.

Resources

Students must have access to the appropriate resources required to complete the extended written response assessment. These include the following:

- computer
- word processing software (for example Microsoft Word)

All students' scripts must be submitted to NCFE for marking. All assessment material must be securely prior to submission.

Assignment coverage table

Assignment 1 – assist with physiological measurement skills

Assisting with Healthcare Science performance outcomes (POs)	
PO1	Contribute to patient care by supporting physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in diagnosis and treatment
<p>K1.1 The responsibilities and duties of the job role of a healthcare science assistant (HCSA) when supporting the collection of clinical measurements</p> <p>K1.7 The purpose of a range of services within healthcare science that contribute to patient care, to investigate, diagnose and treat disease</p> <p>K1.8 Responsibilities of a range of roles within a multi-disciplinary team within the collection of clinical measurements</p> <p>K1.11 The importance of adhering to the regulatory framework within which research and innovation is conducted by the Health Research Authority (HRA) and Medicines and Healthcare products Regulatory Agency (MHRA)</p> <p>K1.17 How knowledge of human anatomy and physiology relates to the methods used for the collection of clinical measurement data</p> <p>K1.18 The importance of assessing physiological measurements against specific normal expected ranges</p> <p>K1.19 How factors can impact on normal physiological measurement values</p> <p>K1.20 The underpinning scientific principles of equipment and devices used for a range of common tests</p> <p>K1.26 The importance of equipment being calibrated correctly</p> <p>K1.27 When calibration may be required</p> <p>K1.31 How to address issues with equipment that is not fit for use</p> <p>K1.35 The difference between single use and multiple-use equipment</p> <p>K1.36 How person-centred care is applied within healthcare science where clinical measurements are being collected</p> <p>K1.37 The methods used to collect clinical measurements</p> <p>K1.38 Appropriate techniques for taking required measurements from patients considering a range of personal factors</p> <p>K1.39 The importance of adhering to good clinical and scientific practice</p> <p>K1.40 The contraindications and other considerations associated with clinical measurement techniques</p> <p>K1.41 How underpinning knowledge of health, safety, regulation, legislation, local and national policies and standards relates to the collection of clinical measurements and images</p> <p>K1.44 How core knowledge of infection control relates to assisting with healthcare science and in particular collecting clinical measurements</p> <p>K1.49 The importance of reporting clinical measurement data accurately with appropriate levels of confidentiality</p>	

- S1.52 Apply knowledge of roles and responsibilities to provide the best patient care when supporting the physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in diagnosis and treatment
- S1.56 Apply knowledge of anatomy and physiology to the collecting of clinical measurement data
- S1.57 Apply knowledge of relevant science concepts when supporting the collection of clinical measurements
- S1.58 Select appropriate equipment and accessories and/or devices for measurements to be collected
- S1.59 Apply knowledge of the underpinning principles of the use of equipment and devices used to take clinical measurements in order to ensure that accurate measurements and images are obtained
- S1.60 Undertake calibration of equipment that is within scope of practice
- S1.62 Ensure equipment is fit for use before using it with patients
- S1.64 Provide person-centred care in respect of collecting all data and images
- S1.66 Apply consent procedures when collecting clinical measurements
- S1.69 Apply good clinical and scientific practice when undertaking all activities in respect of collecting measurement data and images
- S1.75 Apply good infection control techniques at all times to maintain a safe environment for service users and staff
- S1.77 Accurately record patient information from a range of clinical measurement tasks
- S1.78 Handle all patient information in line with local and national policies to meet all confidentiality requirements

PO2	Contribute to patient care by supporting the collection of a range of specimens for analysis to aid diagnosis and treatment
N/A	
PO3	Contribute to patient care by processing and analysing service user specimens in a range of life science areas and laboratory environments to produce reliable data sets for use by healthcare professionals in diagnosis and treatment
N/A	

Assignment 2 – assist with specimen collection and point of care testing (POCT) skills

Assisting with Healthcare Science POs	
PO1	Contribute to patient care by supporting physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in screening, diagnosis and treatment
N/A	
PO2	Contribute to patient care by supporting the collection of a range of specimens for analysis to aid diagnosis and treatment
<p>K2.2 The range of patient specimens that can be collected within the physiological sciences</p> <p>K2.4 The purpose of a range of life science divisions</p> <p>K2.7 The purpose of collecting a range of specimens across physiological, physical, and life sciences, to investigate, diagnose and treat disease</p> <p>K2.8 Responsibilities of a range of roles within a multi-disciplinary team for the collection of specimens within the physiological and physical environment</p> <p>K2.10 The importance of adhering to the regulatory framework within which research and innovation is conducted by the Health Research Authority (HRA) and Medicines and Healthcare products Regulatory Agency (MHRA)</p> <p>K2.15 The definition of clinical/patient specimen</p> <p>K2.16 How different types of specimens are collected</p> <p>K2.17 The rationale and overarching principles of specimen collection</p> <p>K2.18 How underpinning knowledge of anatomy and physiology relates to the collection of specimens</p> <p>K2.19 The procedures for a range of specimen collection techniques, including the range of sampling sites which may be used</p> <p>K2.20 The importance of adhering to health and safety requirements, including the use of personal protective equipment (PPE) and infection prevention control when collecting specimens</p> <p>K2.21 How the principles of person-centred care relate to specimen collection and ensure that these are adhered to when undertaking any specimen collection procedure</p> <p>K2.22 What contraindications are in relation to specimen collection and how they may affect specific specimen collection procedures</p> <p>K2.24 The purpose of a range of equipment and resources used in specimen collection techniques</p> <p>K2.25 The processes to ensure equipment used in the collection of specimens is fit for use</p> <p>K2.26 How infection control procedures are used while collecting specimens in relation to equipment and resource use</p> <p>K2.36 How non-communicable disease states (for example diabetes, dehydration, vascular disease) impact the</p>	

specimen collection procedure

K2.37 How to check for non-communicable disease states

K2.39 How to use appropriate waste streams and colour coded waste procedures for specimen collection equipment and resources

K2.42 What point of care testing (POCT) is

K2.45 The principles and processes of undertaking a range of common POCT

K2.48 The purpose of different self-testing digital healthcare technologies

S2.49 Apply knowledge of roles and responsibilities to provide the best service user care when supporting physiological services, physical services and life sciences in the collection of specimens from patients

S2.52 Recognise the need to refer and effectively refer patients to another member of the healthcare team

S2.53 Apply knowledge of principles of anatomy and physiology to support the safe and appropriate collection of a specimen from a patient

S2.54 Apply knowledge of principles of specimen collection to support the safe and appropriate collection of a specimen from a patient

S2.55 Undertake specimen collection using appropriate procedures and following SOPs

S2.58 Gather information to support the safe and appropriate collection of the specimen, through questioning, listening to and observing patients and/or carers

S2.59 Demonstrate person-centred care when undertaking sample collection

S2.60 Demonstrate the ability to use appropriate waste streams for consumables associated with specimen collection

S2.61 Recognise appropriate disinfection/sterilisation requirements for consumables associated with sample processing

S2.62 Use equipment and resources appropriately in the collection of patient specimens

S2.63 Apply appropriate disinfection/sterilisation methods for equipment used to collect patient specimens

S2.64 Handle patient information in line with local and national policies to meet all legislative and legal requirements and keep information confidential

S2.66 Record the collection of the sample and pertinent information

S2.70 Make reasonable adjustments to specimen collection procedures in relation to identified disease states, for example use of alternative equipment

S2.71 Recognise appropriate waste streams for equipment and resources used to collect patient specimens

S2.72 Dispose of any equipment and resources adhering to relevant legislation and local guidelines

S2.74 Ensure all products are fit for use and rotate stock as appropriate

S2.75 Perform point of care testing (POCT) techniques on a range of individuals, following all required guidelines and applying knowledge of the tests that can be undertaken

S2.76 Provide person-centred care when undertaking POCT

S2.77 Apply consent procedures when undertaking POCT

S2.79 Promote health and wellbeing, both physical and mental at all times when working with patients, including

during POCT

S2.80 Obtain reliable data from POCT using appropriate techniques, following SOPs

S2.81 Apply good clinical and scientific practice when undertaking all activities in respect of POCT, including quality management of equipment

PO3

Contribute to patient care by processing and analysing service user specimens in a range of life science areas and laboratory environments to produce reliable data sets for use by healthcare professionals in diagnosis and treatment

N/A

SAMPLE

Assignment 3 – observation of microscopy and specimen analysis skills

Assisting with Healthcare Science POs	
PO1	Contribute to patient care by supporting physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in diagnosis and treatment
N/A	
PO2	Contribute to patient care by supporting the collection of a range of specimens for analysis to aid diagnosis and treatment
N/A	
PO3	Contribute to patient care by processing and analysing service user specimens in a range of life science areas and laboratory environments to produce reliable data sets for use by healthcare professionals in diagnosis and treatment
<p>K3.1 The responsibilities and duties of the job role of a healthcare science assistant (HCSA) when supporting the processing and analysing of specimens</p> <p>K3.2 The duties of an HCSA who is processing and analysing a range of specimens within the following life science areas and laboratory environments</p> <p>K3.5 The importance of adhering to the regulatory framework within which research and innovation is conducted by the Health Research Authority (HRA) and Medicines and Healthcare products Regulatory Agency (MHRA)</p> <p>K3.8 The job role of a HCSA working in the life sciences in relation to department accreditation</p> <p>K3.10 Responsibilities of a range of roles within a multi-disciplinary team within the life sciences</p> <p>K3.12 Factors which would dictate when they should seek support and advise from clinical colleagues</p> <p>K3.13 The purpose of the following quality assurance (QA) processes in relation to the processing and analysing of specimens</p> <p>K3.14 How data is accurately presented and transferred within clinical laboratory environments using a range of IT systems</p> <p>K3.15 The process for ensuring the correct specimen has been received both electronically and using paper forms</p> <p>K3.21 The functions of a range of laboratory equipment used in the processing of specimens</p> <p>K3.26 The underlying principles of techniques used in the processing of specimens while using light microscopy techniques</p> <p>K3.31 Infection prevention techniques for processing specimens</p> <p>S3.38 Apply knowledge of roles and responsibilities to provide the best service user care when processing and analysing patient specimens within a range of laboratory environments</p> <p>S3.39 Apply understanding of the scope of practice in these specific areas to ensure effective service user care</p>	

S3.41 Recognise the need to refer, and make referrals of service users to a senior member of the healthcare team

S3.43 Adhere to all required QA procedures to ensure valid, accurate and reliable data is produced

S3.44 Check the suitability and quality of all samples received adhering to local guidelines

S3.45 Demonstrate the ability to determine if samples received are of a sufficient quality to permit processing

S3.46 Follow procedures if samples are deemed not suitable, for example if samples are leaking they should be discharged and disposed of appropriately

S3.47 Use IT systems to record details of samples received

S3.48 Handle all samples with care and respect

S3.49 Adhere to storage requirements for samples

S3.51 Use a range of pieces of routine laboratory equipment to process service user specimens

S3.54 Apply knowledge of underlying principles of microscopy techniques used in the processing of samples, to ensure that samples are processed effectively to obtain the most accurate results possible

Assignment 4 – analysis and evaluation through extended written responses

Assisting with Healthcare Science POs	
PO1	Contribute to patient care by supporting physiological, physical and clinical engineering services to produce reliable data and images for use by healthcare professionals in diagnosis and treatment
<p>K1.1 The responsibilities and duties of the job role of a healthcare science assistant (HCSA) when supporting the collection of clinical measurements</p> <p>K1.8 Responsibilities of a range of roles within a multi-disciplinary team within the collection of clinical measurements</p> <p>K1.10 The purpose of research and innovation in healthcare science</p> <p>K1.11 The importance of adhering to the regulatory framework within which research and innovation is conducted by the Health Research Authority (HRA) and Medicines and Healthcare products Regulatory Agency (MHRA)</p> <p>K1.13 How quality assurance, management and improvement links to their associated standards and accreditation bodies</p> <p>K1.16 Factors that would dictate the need to seek support and advice from clinical colleagues</p> <p>K1.17 How knowledge of human anatomy and physiology relates to the methods used for the collection of clinical measurement data</p> <p>K1.20 The underpinning scientific principles of equipment and devices used for a range of common tests</p> <p>K1.22 The advantages and disadvantages of an ultrasound</p> <p>K1.26 The importance of equipment being calibrated correctly</p> <p>K1.29 The importance of maintaining equipment effectively when collecting measurements and images from patients</p> <p>K1.30 The importance of adhering to maintenance schedules for complex equipment such as X-ray machinery</p> <p>K1.31 How to address issues with equipment that is not fit for use</p> <p>K1.35 The difference between single-use and multiple-use equipment</p> <p>K1.44 How core knowledge of infection control relates to assisting with healthcare science and in particular collecting clinical measurements</p> <p>K1.51 The actions to follow after noticing signs of an immediate or urgent referral while collecting clinical measurements</p> <p>S1.53 Apply understanding of the scope of practice in these specific areas to ensure effective patient care</p> <p>S1.54 Contribute to research and innovation within the boundaries of relevant clinical and scientific practice as required</p> <p>S1.55 Recognise the need to refer, and make referrals of patients, to a senior member of the healthcare team</p> <p>S1.57 Apply knowledge of relevant science concepts when supporting the collection of clinical measurements</p> <p>S1.59 Apply knowledge of the underpinning principles of the use of equipment and devices used to take clinical measurements in order to ensure that accurate measurements and images are obtained</p>	

S1.60 Undertake calibration of equipment that is within scope of practice
 S1.61 Raise concerns about equipment if found that the equipment is out of date
 S1.62 Ensure equipment is fit for use before using it with patients
 S1.80 Take appropriate actions if an urgent or immediate referral is noted

PO2	Contribute to patient care by supporting the collection of a range of specimens for analysis to aid diagnosis and treatment
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K2.1 The responsibilities and duties of the job role of a healthcare science assistant (HCSA) when supporting the collection of specimens
 K2.13 The responsibilities of the HCSA in quality assurance, management and improvement
 K2.14 Factors that would dictate the need to seek support and advice from clinical colleagues
 K2.29 The requirements to ensure effective packaging, storage and transportation of specimens within and outside of a healthcare facility
 S2.65 Record all required patient information on a collected sample, ensuring that this information is accurate and is consistent across all documentation related to the sample
 S2.66 Record the collection of the sample and pertinent information

PO3	Contribute to patient care by processing and analysing service user specimens in a range of life science areas and laboratory environments to produce reliable data sets for use by healthcare professionals in diagnosis and treatment
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K3.1 The responsibilities and duties of the job role of a healthcare science assistant (HCSA) when supporting the processing and analysing of specimens
 K3.5 The importance of adhering to the regulatory framework within which research and innovation is conducted by the Health Research Authority (HRA) and Medicines and Healthcare products Regulatory Agency (MHRA)
 K3.12 Factors which would dictate when they should seek support and advice from clinical colleagues
 K3.13 The purpose of the following quality assurance (QA) processes in relation to the processing and analysing of specimens
 K3.21 The functions of a range of laboratory equipment used in the processing of specimens
 K3.22 When calibration may be required for processing and analysing equipment
 K3.23 How to maintain equipment within daily and weekly maintenance cycles
 K3.25 How to calibrate laboratory equipment
 S3.38 Apply knowledge of roles and responsibilities to provide the best service user care when processing and analysing patient specimens within a range of laboratory environments
 S3.40 Contribute to research and innovation within the boundaries of relevant clinical and scientific practice as required
 S3.41 Recognise the need to refer, and make referrals of service users, to a senior member of the healthcare team

S3.53 Maintain a range of equipment used in the processing and analysing of specimens to ensure it is fit for use

SAMPLE

Appendix 2: observation record forms (exemplar from sample assessments assignment 1)

Descriptive information and evidence of student’s skills during the practical assignment. Even though evidence of the quality of skills demonstrated should support decisions against the mark scheme, the notes should follow the flow of the tasks and how students are expected to complete them, rather than attempting to assign evidence against the criteria at this stage.

To be completed by the provider-appointed assessor

<p>Area/objective – the following areas/objectives can cover a broad range of skills or actions that should be considered when adding notes. The text below each area/objective is an example of what should be observed and is not exhaustive.</p>	<p>Comments – identifying student’s areas of strengths and weaknesses through the use of thorough and precise notes that differentiate between a range of students’ practical skills. This will be used to support accurate and consistent allocation of marks once all evidence had been generated.</p>
<p>Hand hygiene</p> <p>Describe how well the student prepares for and maintains hand hygiene to include techniques and any risks to hygiene.</p>	
<p>Preparation</p> <p>Describe how well the student collects appropriate equipment, such as the ECG monitor, sphygmomanometer, and pulse oximeter. Placing equipment in appropriate areas ensuring there are no hazards.</p>	
<p>Health and safety: equipment</p> <p>Describe how well the student checks that equipment is safe for use on the patient.</p>	
<p>Health and safety: personal protective equipment (PPE)</p> <p>Describe how well the student uses PPE for each procedure including PPE required for respiratory clinics due to COVID-19.</p>	
<p>Health and safety: environment</p> <p>Describe how well the student maintains the work environment to include infection control.</p>	

<p>Person-centred care: confirmation</p> <p>Describe how well the student confirms patient identity and consent.</p>	
<p>Person-centred care: communication</p> <p>Describe how well the student interacts with the patient to include communication skills and patient comfort, dignity and respect.</p> <p>Student discusses procedures with patient and allows questions to be asked.</p>	
<p>Person-centred care: patient comfort</p> <p>Describe how well the student prepares the patient for each procedure.</p>	
<p>Procedure: pulse oximeter</p> <p>Describe how well the student guides the patient through the procedure, to include the following:</p> <ul style="list-style-type: none"> • patient needs to have been rested for 5 minutes before the procedure begins • patient is in a seated position • patient places hand on centre of chest • pulse oximeter attached to index/middle finger • results recorded (Note: if reading fluctuates, ensure the pulse oximeter is worn for at least 1 minute and a reading that remained for at least 5 seconds is recorded) • result is correctly noted • pulse oximeter is correctly cleaned after the procedure 	
<p>Procedure: blood pressure</p> <p>Describe how well the student carries out the procedure to include the following:</p> <ul style="list-style-type: none"> • applies correct sized cuff • appropriate arm chosen to obtain a valid measurement and maintain patient comfort (for example, arm with cannular in situ not used) 	

<ul style="list-style-type: none">• lower edge of cuff 2cm to 3cm above the brachial artery• locates the radial pulse• inflates the cuff using the bulb• when pulse no longer felt inflates cuff by another 20mmhg• places stethoscope in ears and with the diaphragm over the brachial artery• deflates the cuff noting the point where pulse is detectable (systolic) and when it disappears (diastolic)• records measurement	
<p>Procedure: ECG</p> <p>Describe how well the student assists the practitioner in carrying out the procedure to include the following:</p> <ul style="list-style-type: none">• introduces themselves and briefly describes procedure• gains consent• confirms patient details and correctly enters data into ECG machine• advises patient to remove clothing• modesty blanket provided• patient is correctly positioned• skin is cleaned prior to electrode attachment• chest electrodes are correctly applied• the correct leads and electrodes are attached, ensuring good skin contact and avoiding pull on the skin• the student advises the patient what is required from them during the test• ECG trace is recorded, and the student rechecks electrodes if trace is poor• machine is turned off once results obtained, removes and stores equipment correctly• results are recorded in the patient's notes• patient is informed that the procedure is now	

complete	
Recording/reporting: Describe how the student updates the relevant paper-based logs.	
Post-procedure: Describe how well the student disposes of PPE and cleans down equipment.	

SAMPLE

Appendix 3: final mark form

T Level Technical Qualification in Healthcare Science
Assisting with Healthcare Science

Student name:		Assessor name:	
Student ID:		Provider name:	

Assignment	Final mark
Assignment 1: observation of physiological measurement skills	
Assignment 2: observation of specimen collection and point of care testing (POCT) skills	
Assignment 3: observation of microscopy and specimen analysis skills	
Total mark:	

Student name (PRINT):		Assessor name (PRINT):	
Student signature:		Assessor signature:	
Date:		Date:	

Document information

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Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of issue
v1.0	Additional sample material		01 September 2023
v1.1	Sample added as a watermark	November 2023	21 November 2023