



# T Level Technical Qualification in Healthcare Science

Occupational specialism assessment (OSA)

## Optical Care Services

Assignment 4 - Distinction

Guide standard exemplification materials

v1.0: Specimen assessment materials  
November 2021  
603/7083/X

Internal reference: HCSci-GSEM-17

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## Optical Care Services

Assignment 4

## Contents

<b>Introduction</b> .....	<b>3</b>
<b>Extended written task 1</b> .....	<b>4</b>
<b>Extended written task 2</b> .....	<b>6</b>
<b>Extended written task 3</b> .....	<b>8</b>
<b>Extended written task 4</b> .....	<b>10</b>
Examiner commentary .....	12
Overall grade descriptors .....	13
<b>Document information</b> .....	<b>14</b>
Change History Record .....	14

## Introduction

The material within this document relates to the Optical Care Services occupational specialism sample assessment. These exemplification materials are designed to give providers and students an indication of what would be expected for the lowest level of attainment required to achieve a pass or distinction grade.

The examiner commentary is provided to detail the judgements examiners will undertake when examining the student work. This is not intended to replace the information within the qualification specification and providers must refer to this for the content.

Assignment 4 is a written assessment where students must apply a range of knowledge and understanding based on valid scenarios from the real world and compose relevant and meaningful responses.

After each live assessment series, authentic student evidence will be published with examiner commentary across the range of achievement.

# Extended written task 1: multifocal problem solving

## Scenario

You are working as an optical assistant in a local practice. A patient returns to your practice concerned that they are struggling to read at work with their new varifocals. They work as an accountant and this is their first pair of glasses. They manage both computer and handwritten accounts as part of their role. You have been asked to investigate the problem to check whether they have been manufactured and fitted correctly and make recommendations to ensure the patient can use their glasses comfortably.

## Task

Discuss how you would investigate the problem, what checks you would complete and what equipment you would use, including a summary on what conclusions you reach and any advice you would give to the patient.

## Student evidence

I would greet the service user, calmly and patiently, and apologise for the fact they have had to return. I ask them to explain the problems they are having and empathise with them. I would ensure that they feel at ease about returning and explain that first time varifocals can be difficult to adjust to, but I will do what I can to resolve the situation, however, if necessary, I may need to call on my dispensing optician.

I would ask the service user to explain which tasks they are finding difficult and how far the working distance is for these tasks. I would explain that the position they are working in can impact the use of the varifocal. I would ask them to try on their glasses to determine what they could read at this stage, checking distance, intermediate and reading, using a reading chart and a distance focal point.

I would check the frame and lens are correct regarding the original order and explain that I need to mark the lenses up so I can check the measurements, and this involves finding some engravings on the lens. I would mark the temporal and nasal circles up and use a varifocal lens template to mark up the fitting cross, distance reference point and near reference point.

I would then explain that I am going to check the prescription by using a focimeter, which is a machine that reads the power of the lenses. I ensure that the frames are square and flat on the measuring surface and the clamp is placed carefully onto the lenses. I would check that the distance reference point is sitting correctly and record the prescription, verifying the reading from the engraving.

I would ask the service user to try on the frame and check the fitting cross is sitting on the pupil centre. I would check the pantoscopic angle, using a pantoscopic measuring tool to ensure it was within the optimal range. I would also check the frontal bow to ensure the front wasn't too flat. I would make any necessary adjustments to the bridge, angle of side, or face form angle if required.

Following making adjustments, I would ask them to try the frame on again and check the same measurements before asking them to try their reading, intermediate and distance again. I would check their head position and explain to them again how to use their varifocals. I would explain the limitations of the peripheral soft focus and how they need to point their nose at what they want to look at and adjust the chin. I would explain that to use a computer monitor straight ahead that they will need to tip the head back slightly to use the intermediate part of the lens and that paper accounts may require them to move the head from side to side if they cover a wide area. I would explain that for these tasks they may benefit from an occupational lens or a bifocal with intermediate and reading. However, these lenses won't have any distance vision so varifocals may still be best for general wear. I would reassure them that there is a non-tolerance guarantee if they do need a different type of lens to solve their

problem.

If they are seeing better with the varifocals, I would ask them to take the varifocals and try them for a bit longer, otherwise I would refer to my professional colleagues for further advice and a possible re-check. If they are not seeing better, I would explain to the service user that all the checks I have completed have not resolved the problem so I am going to refer to my professional colleagues and we may need to complete another sight test.

## Extended written task 2: components of prescriptions and types of vision

### Scenario

You are working as an optical assistant and you take a handover following a sight test. The patient has a prescription for glasses and has also been told by the optometrist that they have a cataract developing in their left eye. The patient asks you to explain what the prescription means and how this relates to their sight problem, as they cannot remember how the optometrist explained it to them, including the cataract.

### Task

Analyse the prescription below and outline how you would explain the prescription to the patient, including how it relates to their own sight, what a cataract is and how it may affect vision.

R	SPH	CYL	AXIS	PRISM	BASE		SPH	CYL	AXIS	PRISM	BASE	L
I	-	-	80			Distance	-	-	170			E
G	2.00	1.00					3.00	0.50				F
H		Near	+2.00			Near		Near	+2.00			T
T		Add						Add				

#### Comments:

VA: R. 6/6 L. 6/9

Near VA: R. N6 L. N8

### Student evidence

I would start by explaining that the prescription is made up of different components and their prescription has a sphere, cyl, axis, and near add.

The sphere is the power of the lens and can be plus or minus, however, their sphere is a minus, which means that they are short-sighted, also known as myopia. This will affect long distance vision. Their lens will be thicker on the edge than in the middle.

The cyl is short for cylinder and is the power needed to correct an astigmatism, it can be written as a plus or a minus, depending on the optometrist's choice. Astigmatism means that the eye is rugby ball shaped instead of football shaped. I would reassure them that this is a common vision type and nothing to worry about. It will affect vision at all distances. The axis tells the lab what angle to put the cyl into the lenses.

I would explain that the near add is the part of the prescription we have to add on to help with reading. This is because they are presbyopic. This is part of the natural ageing process and around our mid-40s, the lens in the eye

becomes less flexible and the muscles in the eye become weaker so instead of the lens changing shape to help us focus on close work, we need help from a spectacle lens. This can be corrected with a pair of reading glasses, bifocals, varifocals, or occupational lenses.

The 6/6 and 6/9 part of the prescription is known as the visual acuity or VA, this tells us which line on the test chart they can see when wearing their glasses. I would explain that the smaller the number on the bottom the smaller the letters they can see. I would also explain that the cataract that the optometrist had mentioned is the likely reason for the left VA being lower than the right. N6 and N8 relates to the size of type they can see on the reading chart and again the right lens will see slightly better than the left, even when wearing their glasses.

The cataract that was mentioned is when the lens becomes cloudy, so vision isn't as clear. When the time is right it can be corrected with a simple operation where the cloudy lens is removed, and a new lens is put in its place. It is more commonly done under local anaesthetic in day surgery. The optometrist may feel that it is best to monitor the cataract at this stage and ask the service user to get in touch if they feel it gets worse.

## Extended written task 3: higher powered lenses

### Scenario

You are working as an optical assistant and you take a handover from the optometrist; the patient wants advice on frame and lens options available. Following lens and frame selection, the patient agrees to proceed with the glasses, and you will need to take the appropriate measurements and order the lenses remotely from a glazing house. The glazing house works in plus cylinder form and requires knowing the blank size to order.

### Task

Analyse the prescription below and discuss the optimal frames and lenses choices, including why these would be recommended and describe the measurements you should take and why. You should also transpose the prescription for the order, explaining how you would calculate the minimum blank size.

R I G H T	SPH	CYL	AXIS	PRISM	BASE		SPH	CYL	AXIS	PRISM	BASE	L E F T
		+5.00	-1.00	70			Distance	+5.50	-0.50	160		
						Near						

#### Comments:

BVD 12mm

### Student evidence

I would ask the service user what sort of glasses they had worn in the past and look at them. I would ask if they had been happy with them and what, if anything, they don't like about them. I would check the prescription and optical centres and ask if they know whether they have had them thinned in the past. I would look at what coatings they had previously had too.

I would explain that their prescription is made up of different components and the plus sphere means they are long-sighted. Plus lenses are thicker in the middle than at the edges and I would therefore advise a smaller, rounder frame as this will be better suited to this type of lens. I will explain that for comfort, they may want to consider a plastic style frame with no nose pads. This evenly distributes the weight of the glasses and makes them more comfortable.

I would explain that there are different lenses available that can be thinned down and explain that the higher the number the thinner the lens. I would also explain that they can also be made differently to make them flatter too; we call this aspheric. I would use example lenses and frames available to demonstrate these benefits to the service user to help them make a decision. If the service user asked about having glass lenses, I would explain that the plastic lenses would be lighter and safer than glass. I would also explain that they would benefit from an anti-reflection coating as high index lenses often caused more reflections. I would demonstrate this with the example



lenses I had available.

Once they have chosen their frame, I would check the fit, check their eyes are sitting centrally in the frame to ensure the best thickness, as this means that the lens will not need to be decentred and a minimum blank size can be ordered. I would also check length to bend and the temple width to ensure the frame fits well and can be adjusted if required.

I would explain to the service user that I need to measure pupil distance, vertical heights, and vertex distance. I would complete this with my ruler or other resources available. Vertical heights are important when dispensing aspherics. Vertex distance (VD) is measured from the back of the lens to the front of the eye when looking straight ahead, with a ruler/VD measuring tool, to ensure it measured 12mm as per the optometrist's prescription. If not, I would refer to a dispensing optician (DO). If a lens sits further away than the VD that the optometrist measured, then the effective power of the lens is different and may impact what the service user can see.

I would calculate the minimum blank size by adding together the eye size and bridge size, subtracting the service user's pupil distance, and adding 2mm for glazing. I would add this to the longest diagonal of the lens and ensure this is added to the order.

I would transpose the prescription before ordering, by adding the sphere to the cyl, changing the sign on the cyl and adding or subtracting 90 from the axis ensuring it is between 1 and 180. The transposed prescription would be as follows

+4.00/+1.00 x 160

+5.00/+0.50 x 70

## Extended written task 4: legislation

### Scenario

You are working as an optical assistant within an independent practice and you have the following scheduled appointments for this morning:

- a patient is returning with their safety glasses as their lens has fallen out
- a 15 year old is attending for a sight test and will require glasses to be dispensed
- a patient has complained about their new frame after a rash appeared, they are returning to the practice for it to be sorted
- a patient who had their eyes tested elsewhere is booked in to purchase a pair of prescription sunglasses

The floors within the practice are prone to becoming slippery during wet weather and it has been raining since the night before.

### Task

Discuss the legal requirements that you must follow, including appropriate working practices, with consideration to the impact on both you as an optical assistant, and the business if these are **not** followed.

### Student evidence

I would ensure that I keep myself, colleagues, and service users safe by mopping the floor and putting a wet floor sign out. It's important to comply with the Health and Safety at Work Act so that I take reasonable care of my own, and others, safety.

I would explain to the service user that we can't legally repair any safety glasses and explain that they will have to be returned to the manufacturer. All safety glasses have to meet a specific standard and go through rigorous safety checks on completion; these will need to be repeated by the manufacturer following the repair. I will apologise for any inconvenience and let them know that we will inform them as soon as they are returned.

I would check I have the correct details for the teenager by asking them to give me their details. This ensures I don't breach any data protection laws by not giving out data. I will check if they are due for a sight test, following the NHS guidelines, checking when their last test was and what the recall period was. If they are eligible for another sight test I would ensure that a parent is there to sign the form. Following the dispense, I would ensure a General Optical Council (GOC) registered colleague checked everything over before ordering. This is very important as it is part of the GOC policies and procedures. If I do not seek supervision then it could lead to me getting a warning, or worse, my colleague may be removed from the GOC register and the company may be fined.

I would check where the rash is and look at the frame to see whether I thought it was related to the frame. I would explain that they will need to cease wearing the frame as it may be a nickel allergy; in which case I would advise a change to a titanium or acetate frame as these are hypoallergenic. If it is a silicone nose pad allergy, then I would advise that I will change for hypo-allergenic nose pads. I would apologise to the service user and ensure that they were welcome to return if the problem was not resolved.

I would check that the prescription is in date and completed correctly, ask what the sunglasses are to be used for and advise that filter 3 is the darkest they can use for driving. I would ensure that I dispensed a UV protection. I would also explain that there was a choice of tint and that brown and grey were most popular. I would use demonstration lenses to help them decide about the tint and also explain about polarised and reactions as these

may be more suitable for them.

## Examiner commentary

The student adeptly outlined communication with the service user indicating an individualised, empathetic and professional manner. The student applied an understanding of resources and equipment required to analyse lens power, lens measurements and frame fit. The student effectively outlined communication of relevant knowledge of the scope and limitations of varifocal lenses to the service user.

The student demonstrated an excellent professional attitude. They made excellent recommendations for the service user, including both products and advice and ensured this was explained in a service user friendly manner, avoiding jargon and explaining fully where required. The student understood the actions needed to solve problems and carried these out in a logical manner. The student was able to recognise when there was further support needed from their professional colleagues and explains to the service user the reason for this. The student demonstrated excellent knowledge and an excellent understanding of the products to recommend with full explanations and planned to use resources to demonstrate this when applicable. The student was fully aware of safety and confidentiality, ensuring that legislation is met and understood the implications of not following these policies and procedures on themselves, their colleagues and the employer.

To improve their responses, the student should have demonstrated their knowledge of pantoscopic angles and the need for the angle to be 8–12 degrees for optimal use of a varifocal, and that for every 2 degrees of pantoscopic angle, the heights should be adjusted by 1mm when dispensing aspheric lenses. The student could also have demonstrated further knowledge of myopia by explaining that it causes the image to form in front of the retina, so a concave/diverging lens is used for correction.

The student could have improved their outline of communication with service users by explaining technical notation further. They could have explained that someone with 6/9 vision can only read the same size letters at 6 metres that someone else can read further away at 9 metres. When advising the service user on prescription sunglasses, the student could have given more information on the tint of the lenses explaining that a grey tint gives the wearer a truer colour whereas a brown tint gives a better contrast.

To show a deeper understanding of professional practice, the student could have discussed the employer's responsibilities relating to the Health and Safety at Work etc Act 1974.

## Overall grade descriptors

The performance outcomes form the basis of the overall grading descriptors for pass and distinction grades.

These grading descriptors have been developed to reflect the appropriate level of demand for students of other level 3 qualifications, the threshold competence requirements of the role and have been validated with employers within the sector to describe achievement appropriate to the role.

Grade	Demonstration of attainment
Pass	The student demonstrates good knowledge and understanding of the topics and the optical/healthcare context in which it lies.
	The student demonstrates good levels of professional practice, including record keeping, whilst carrying out tasks/activities, showing respect to safety, care and confidentiality for patients, colleagues and oneself.
	The student has an appreciation of the action to be taken when errors occur.
	The student demonstrates a good understanding of their own development with some learning through reflective practice
	The student demonstrates good skills and knowledge of the relevant concepts and techniques reflected in an optical setting and generally applies this across different contexts.
	The student demonstrates good practical skills showing respect for safety, care and confidentiality for patients, colleagues and oneself.
	The student can interact with a range of staff and patients and has good knowledge and understanding of prescriptions, spectacles and lenses across a range of contexts.
Distinction	The student demonstrates excellent knowledge and understanding of the topics and appreciation of the optical/healthcare context in which it lies.
	The student demonstrates excellent levels of professional practice, including record keeping, whilst carrying out tasks/activities applying them in the optical context.
	The student shows respect for safety, care and confidentiality for patients, colleagues and oneself.
	The student fully acknowledges when errors occur and the reporting process.
	The student demonstrates a good insight to their own development, demonstrating significant learning through reflective practice.
	The student draws on reflective practice and relates their development and learning to work in practice.
	The student demonstrates excellent practical skills showing respect for safety, care and confidentiality for patients, colleagues and oneself.
	The student can interact with a broad range of staff and patients and displays an excellent range of knowledge and understanding of prescriptions, spectacles and lenses across a range of contexts

## Document information

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Owner: Head of Assessment Design

## Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Published final version		November 2021