THE WORSHIPFUL COMPANY OF SPECTACLE MAKERS

LEVEL 4 DIPLOMA

FOR

OPTICAL ASSISTANTS

603/1449/7

QUALIFICATION HANDBOOK

Contents

WCSM Level 4 Diploma for Optical Assistants

Qualification Objective

This qualification has been developed for Optical Assistants employed in optical practice to develop the skills and knowledge to carry out functions associated with the job role.

Throughout this document, the term 'learner' is used to refer to the person seeking to gain the qualification.

Entry Requirements

There are no specific entry requirements. However, candidates will be expected to be able to demonstrate knowledge and experience gained in practice. Candidates may be able to obtain exemption from certain units through recognition of prior learning if they have already achieved a Level 3 Certificate or Diploma in Optical Support and/or a nationally accredited qualification in Mathematics equivalent to grade C or above at GCSE within the last five years.

Customer Service Statement

See relevant sections of the Customer Service Statement at:

http://www.spectaclemakers.com/awardsandtraining/customer-service-statement.htm

for details of:
Equal opportunities policy
Reasonable adjustments
Special considerations
Complaints and appeals procedures.

Progression

This qualification follows on from the WCSM Level 3 Optical Support qualification. Recognition of prior learning will provide exemption from some units for candidates who have recently passed relevant units within the WCSM Level 3 Optical Support qualification.

The Level 4 diploma may facilitate future progression to higher level qualifications such as diplomas in ophthalmic dispensing. There is a recommended set of units – units 6, 9 and 10 - which will provide the learner with understanding of material covered within year 1 of the ABDO Dispensing Diploma. Those who may wish to progress to training towards a Dispensing Optician qualification are strongly recommended to select these optional units. If successful, they may apply to ABDO for recognition of prior learning.

Training

Training sessions may be provided in-house by optical employers and through distance learning to support learners in achieving this qualification.

Details of training workshops, materials and other available support from ABDO College and the associated fees can be found at: www.abdocollege.org.uk

Other training providers may also offer support for this qualification.

Learner Registration

The examinations and registration team at ABDO register students for assessment on behalf of The Worshipful Company of Spectacle Makers. To register for this qualification or for details of examination dates, venues and fees please contact examinations@abdo.org.uk or call 01227 732921.

For details of courses and training available through ABDO College please call 01227 738829 or email info@abdocollege.org.uk.

Assessment

To obtain the diploma, learners must pass both Parts I and Part II. Part I includes five mandatory units and three optional units from a choice of six. All these units are assessed by written examination. Part II involves submission of a portfolio of evidence and a practical assessment. It is expected that learners will be assessed at the end of each year of a two-year course but those claiming exemptions may be able to complete the qualification in a shorter time. A typical pattern would be as follows:

Part I Examinations at the end of year one

- Written papers on each of Units 1, 2, 3 and 4. Each of the papers for Units 1, 2 and 4 will require written answers, the paper to be completed within 90 minutes. Unit 3 will be a paper of 90 minutes assessed by 15 multiple choice questions to be answered in 30 minutes plus a case study.

- Written paper on one optional unit.

Part I Examinations at the end of year two

- Written papers on Unit 5 and two further optional units

Part II – Practical assessment, at the end of year two

Unit 12 Practical

If a candidate fails any unit, the unit can be retaken on its own, up to four times. All Units must be completed within a period of five years.

Exemption may be claimed for units already taken and passed at Level 3 (Units 1 and 2) or for Unit 6 alone if a learner can demonstrate they have achieved a certificate equivalent to Grade C or above in GCSE Mathematics.

Grading

Successful learners will be awarded a Pass/Fail for each unit. A pass in all mandatory units (Units 1-5 and 12) and a pass in three optional units is required to achieve the qualification. There are no grades.

Personal Learner Record and Unique Learner Number

The Personal Learner Record (PLR) logs achievement of units and qualifications provided that the learner has received a Unique Learner Number (ULN). The ULN enables learners to have access to their PLR and for them to give access to training providers and/or employers to enable them to view their records as evidence of achievement.

When a learner registers for a WCSM qualification they will be asked to provide their ULN. Where learners do not possess a ULN we can assist them in obtaining one if they wish their subsequent achievements to be entered on to the PLR.

Level 4 Diploma for Optical Assistants

Structure

Learners must gain a minimum of 88 credits by achieving all mandatory units or evidencing prior learning (in the case of units 1 and 2 and/or unit 6) and also achieving a pass in three of the optional units.

Unit title	Level	Credit
Part I: Mandatory units (53 credits)		
Unit 1: The eye and the principles of optics	3	9
Unit 2: Principles of optical retail practice support and management	4	12
Unit 3: The provision of optical screening and clinical support	4	12
Unit 4: The provision of spectacles in optical practice	4	12
Unit 5: The provision of contact lenses in optical practice	4	8
Optional units (3 units must be taken)		
Unit 6: Mathematics for optical assistants	3	7
Unit 7: The provision of low vision aids in optical practice	4	8

Unit 8: Anterior eye and ocular supplements	4	8
Unit 9: Theory of Optics	4	12
Unit 10: Theory of Ophthalmic Lenses	4	12
Unit 11: Business principles for optical practices	4	8
Part II: Practical assessment (mandatory 12 credits)		
Unit 12: Optical skills in practice	5	12

Mandatory Unit 1

Title	The eye and the principles of optics
Level	3
Credit	9

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1 Understand the nature of light and the electromagnetic spectrum	1.1 Describe the wave theory and the geometrical optics theory of light 1.2 State how velocity, frequency and wavelength of light are related 1.3 Perform calculations involving velocity, frequency and wavelength of light. 1.4 Explain what is meant by the 'Electromagnetic Spectrum'. 1.5 Describe the classification of wavelength ranges. 1.6 Describe and explain chromatic aberration 1.7 Describe and explain the significance of chromatic aberration with regard to lens material
2 Understand the reflection of light when incident at plane and curved surfaces	2.1 State the laws of reflection 2.2 Describe reflection at plane surfaces, using appropriate illustrations 2.3 Describe the behaviour of light when reflected at plane surfaces 2.4 Perform calculations concerning reflected light at plane surfaces 2.5 Describe reflection at curved surfaces, using appropriate illustrations 2.6 Perform simple calculations concerning reflected light at curved surface
3 Understand the refraction of light when incident at plane and curved surfaces	3.1 State the laws of refraction 3.2 Define refractive index 3.3 Describe refraction at plane surfaces, using appropriate illustrations 3.4 Perform simple calculations concerning refracted light at plane surfaces 3.5 Describe refraction at curved surfaces, using appropriate illustrations 3.6 Perform simple calculations concerning refracted light at curved surfaces

4 Understand the basic anatomical structure of the eye and how it relates to refractive errors	4.1 Identify the basic anatomical structures of the eye 4.2 Describe the functions of the anatomical structures of the eye. 4.3 Describe refractive errors in the eye 4.4 Describe the correction of refractive errors in the eye 4.5 Describe and illustrate the relationships between the refractive error and the anatomical structure of the eye

Additional Information about the unit		
Unit Aim(s)	In this unit the learner will understand the structure of the eye and the principles upon which sight-correcting lenses are based	NOS Ref: OPTR 15/OPTR 16

Candidates who have achieved this unit at Level 3 within the last 3 years will be granted exemption from this unit at Level 4.

Mandatory Unit 2

Title	Principles of optical retail practice support and management
Level	4
Credit	12

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the legal requirements that apply in an optical practice and the relevance to the role of an optical assistant	1.1 Discuss the implications of trade descriptions law in the optical retail environment 1.2. Discuss the implications of employment law in the optical retail environment 1.3 Discuss the implications of the equal opportunities legislation in the optical retail environment 1.4 Discuss the implications of discrimination law in the optical retail environment 1.5 Discuss the implications of the Opticians Act in the optical retail environment 1.6 Discuss the implications of the Data Protection Act in an optical retail environment 1.7 Discuss the implications of the legal requirements of CE marking in the optical retail environment 1.8 Explain the benefits of CE marking to the customer and the optical practice
2. Understand the regulatory requirements governing optical practice	2.1 Explain the principal regulatory functions of the GOC 2.2 Discuss how GOC regulation affects the running of an optical practice 2.3 Identify standards of practice expected of GOC regulated individuals and businesses 2.4 Explain differences in the roles of an Optometrist, a Dispensing Optician and an Optical Assistant
3. Understand the health and safety requirements in an optical practice and the relevance to the role of an optical assistant	3.1 Discuss the health and safety regulations as they apply to an optical practice. 3.2 Discuss how this relates to patient safety within optical care 3.3 Describe the assessment of risk 3.4 Describe the management of risk 3.5 Explain how the management of risk protects the customer and the practice

	3.6 Discuss the importance of the correct use of different types of fire equipment in a typical optical practice
4. Understand the skills required for communication in optical practice.	4.1 Recognise and describe different communication styles and methods 4.2 Describe the advantages and disadvantages of different communication methods 4.3 Describe ways in which the concerns of both a customer and their family could be addressed 4.4 Describe the limitations of an optical assistant's authority in situations of potential sight loss 4.5 Discuss mechanisms for protecting patient confidentiality 4.6 Explain the principles and benefits of good record keeping
5. Understand the principles of managing staff and developing individuals' performance in an optical practice	5.1 Describe the responsibilities of staff management in an optical practice 5.2 Describe the range of methods that can be used to develop staff in an optical practice 5.3 Describe the benefits of staff development 5.4 Explain how to monitor an individual's performance 5.5 Describe the key features of an effective individual appraisal system 5.6 Explain the key features of disciplinary and grievance procedures
6. Understand how to achieve excellent customer service in an optical practice.	6.1 Explain what is meant by customer service 6.2 Explain how to plan for, and deliver, good customer service in an optical healthcare environment 6.3 Describe how to manage customer complaints and describe different routes available to customers to resolve complaints which reach a higher stage 6.4 Describe how to manage customer behaviour in difficult situations.
7. Understand how to sell in an optical practice.	7.1 Describe the stages of selling 7.2 Describe the application of selling skills to optical practice 7.3 Describe the benefits to the optical practice of developing and using selling skills 6.4 Identify and discuss possible solutions to challenges arising within a range of optical sales situations
8. Understand the rules of provision of services through a national health care scheme	8.1 Explain the rules for provision of eye tests and the use of vouchers for the dispensing of spectacles and contact lenses within a relevant national healthcare system

Additional Information about the unit		
Unit Aim(s)	Candidates will demonstrate how to effectively manage relationships with customers and colleagues including communication and management skills, and how to develop other people's performance in optical practice. Candidates will understand the legal restrictions and regulatory requirements in a typical optical retail environment. Candidates will have the knowledge to communicate with patients/customers and their families and companions, to improve service, deal with conflict and improve selling skills.	NOS Ref: OPTR 1-6, OPTR14

Candidates who have passed Level 3 units in The Legal Requirements in optics and Managing People in optics within the last 3 years will be granted exemption from this unit at Level 4.

Mandatory Unit 3

Title	The provision of optical screening and clinical support
Level	4
Credit	12

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand how to interpret optical prescriptions	1.1 Interpret single vision prescriptions 1.2 Interpret bifocal prescriptions 1.3 Interpret progressive power prescriptions 1.4 Discuss how accurate interpretation of a prescription influences screening procedures
2 Understand the applications of visual field screening.	2.1 Explain the principles of visual field screening 2.2 Describe visual field defects 2.3 Describe the causes of visual field defects 2.4 Recognise the benefits and drawbacks of visual field screening 2.5 Discuss the actions that can be taken by an optical assistant to improve the accuracy of visual field testing
3. Understand the application of auto-refraction.	3.1 Explain the principles of auto-refraction 3.2 Explain how auto-refraction can improve the effectiveness of the eye test 3.3 Recognise the limitations of relying on an auto-refractor for the determination of an optical prescription 3.4 Discuss the actions that can be taken by an optical assistant to improve the accuracy of the measurement of auto refraction
4. Understand the application of non-contact tonometry in measuring intra-ocular pressure.	4.1 Explain the principles of tonometry 4.2 Describe the alternative methods of tonometry 4.3 Discuss the advantages and disadvantages of contact and non-contact tonometry 4.4 Explain why it is necessary to measure intra-ocular pressure and the implications for patient health and sight 4.5 Describe the types of action that may be taken by the optometrist when intra-ocular pressure anomalies are found 4.6 Discuss the actions that can be taken by an optical assistant to improve the accuracy of IOP measurement.
5. Understand the importance of fundus photography and optical coherence tomography.	5.1 Explain the principles of fundus photography 5.2 Discuss the advantages and disadvantages of fundus photography 5.3 Discuss the optical factors that affect the quality of a fundus photograph

	5.4 Discuss the actions that can be taken by an optical assistant to improve the quality of fundus photograph 5.5 Explain the principles of optical coherence tomography ("OCT") 5.6 Identify the ocular conditions for which OCT would be beneficial 5.7 Discuss the optical factors that affect the quality of OCT 5.8 Discuss the actions that can be taken by an optical assistant to improve the quality of OCT imaging 5.9 Compare and contrast the benefits of fundus photography and OCT.
6. Understand eye conditions typically encountered in an optical practice	6.1 Discuss the signs and symptoms of commonly encountered red eye conditions 6.2 Describe the aetiology of commonly encountered red eye conditions 6.3 Explain the typical management of commonly encountered red eye conditions 6.4 Discuss the symptoms and potential treatments for amblyopia
7. Understand the actions required when confronted with an ocular emergency	7.1 Define an ocular emergency and provide examples that may be commonly seen in optical practice 7.2 Outline the main priorities in dealing with patients who present with an ocular emergency 7.3 Describe the process when dealing with a patient who telephones with a potential ocular emergency 7.4 Describe how to deal with "third party" telephone calls about an apparent ocular emergency 7.5 Discuss the responsibilities and 'best practice' procedures when patients must be referred for treatment

Additional Information about the unit		
Unit Aim(s)	Candidates will be able to interpret and understand the relevance of common optical prescriptions and will understand some common anterior red eye conditions faced in practice. Candidates will have a knowledge of the principles of optical screening equipment and processes for tonometry, auto refraction and visual field testing and how to obtain the best data or measurements Candidates will understand the benefits of fundus photography and optical coherence tomography imaging Candidates will understand the actions required when confronted with an optical emergency	NOS ref: Partial coverage of knowledge elements of OPTR13, OPTR 15 and OPTR 16

Mandatory Unit 4

Title	Supporting the provision of spectacles in optical practice
Level	4
Credit	12

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the design principles for spectacles.	1.1 Explain how the power of a lens influences cosmetic changes in lenses 1.2 Explain how refractive index influences cosmetic changes in lenses 1.3 Explain how the size of a lens can influence cosmetic appearance 1.4 Explain the benefits of aspheric lenses 1.5 Recognise the limitations of certain lens and frame combinations when guiding patient choice 1.6 Discuss the latest trends in spectacle lenses, coatings and frame materials
2. Understand the selection process for dispensing multi-focal lenses including bifocals and trifocals	2.1 Explain the main features of multifocal lenses including bifocal and trifocals 2.2 Discuss the benefits of multifocal lenses including bifocal and trifocals 2.3 Discuss the limitations of multifocal lenses including bifocal and trifocals
3. Understand the measurements required prior to the supply of spectacles	3.1 Discuss the facial measurements required for the supply of spectacles 3.2 Describe the lens measurements required for the supply of spectacles 3.3 Describe spectacle frame measurements for the supply of spectacles 3.4 Discuss the importance of accuracy when taking and recording these measurements
4. Understand the materials used for spectacle lenses	4.1 List and describe the properties of materials that are currently used for manufacturing spectacle lenses. 4.2 Compare and contrast the practical consequences of different spectacle lens materials for a spectacle prescription. 4.3 Analyse the optical implications to the spectacle wearer of using materials with differing properties for a given spectacle prescription. 4.4 Analyse the mechanical implications to the spectacle wearer of using materials with differing properties for a given spectacle prescription.

5. Understand the principles of fitting spectacles	5.1 Discuss the importance of the good fitting of spectacles 5.2 Discuss the consequences of poor fitting of spectacles 5.3 Describe the properties of different types of frame materials 5.4 Explain how to assess frame fitting 5.5 Describe the methods used to adjust frames 5.6 Discuss how to guide customers whilst explaining the limitations of certain spectacle frames and lens combinations	
6. Understand the importance of the care of spectacles.	6.1 Summarise the guidance necessary for the maintenance of spectacles 6.2 Describe the guidance necessary for the cleaning of spectacles including the consequences if not carried out correctly	
7. Understand the use and limitations of protective eyewear.	7.1 Describe the types of protective eyewear 7.2 Explain the situations when protective eyewear is required 7.3 Discuss the advice that can be given about the use and limitations of protective eyewear 7.4 Describe the BS EN ISO standards relating to spectacles and protective eyewear, including sun protection.	
Additional Information about the unit		
Unit Aim(s)	Candidates will know and understand the principles and factors about the choice of particular lenses used in spectacles. Candidates will have knowledge of the principles, designs and fitting of frames, including facial measurements, and the importance of protective and other specialist eyewear.	NOS Ref: Partial coverage of elements of OPTR16,17 and 18

Mandatory Unit 5

Title	Supporting the provision of contact lenses in optical practice
Level	4
Credit	8

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the legal implications of the supply of contact lenses and aftercare.	1.1 State who can legally fit contact lenses and their qualifications 1.2 Explain the legal implications of the sale of contact lenses 1.3 Explain the regulations relating to the remote supply of contact lenses 1.4 Explain the legal implications of the supply of aftercare for contact lens wearers 1.5 Explain the limitations of responsibility and authority of the optical assistant in contact lens supply
2. Understand the key designs of contact lenses	2.1 Describe and explain the specifications used in the fitting of contact lenses. 2.2 Describe the influence that spectacle prescription has on modern contact lens design (including toric, multifocal etc) 2.3 Discuss and compare the different types of modern contact lens designs and their effect on vision 2.4 Describe the different material groups used in contact lenses
3. Understand the wearing modalities of contact lenses.	3.1 Describe the differing types of wearing modalities of contact lenses 3.2 Review the advantages and disadvantages of each modality
4. Understand the principles of cleaning contact lenses	4.1 Explain the principles of contact lens cleaning 4.2 Describe the effects of common contact lens solution ingredients 4.3 Explain the lens care regimens required for different contact lens modalities 4.4 For each type of cleaning regime, explain the ocular risks when cleaning regimes are not respected 4.5 Explain the implications if a user changes a lens care product without advice from an eye care professional

5. Understand how to advise those customers who have not complied with contact lens care regimens or replacement schedules.	5.1 Identify the common signs and symptoms of non-compliance with both cleaning and replacement schedules 5.2 Describe how to discuss poor compliance with a contact lens wearer
6. Explain the principles of teaching contact lens insertion and removal and lens wear and care guidelines.	6.1 Describe stock control principles for diagnostic and teaching stocks of contact lenses 6.2 Detail the preparation of suitable working area and hygiene prior to contact lens insertion and removal teaching. 6.3 Describe the application, removal and cleaning processes for soft contact lens wear 6.4 Describe the application, removal and cleaning processes for gas permeable contact lenses 6.5 Explain the guidelines for wearing times, cleaning regimes, aftercare visits and 'do's and don'ts' of contact lens wear 6.6 Explain the written documentation that should accompany contact lens supply to new wearers
7. Explain the benefits of contact lens wear	7.1 Compare the benefits of contact lens wear and spectacles in different case scenarios.

Additional Information about the unit		
Unit Aim(s)	Candidates will understand the legal framework that regulates contact lenses and solutions and their supply. Candidates will understand the key types, designs and wearing modalities of contact lenses. Candidates will understand the advantages and disadvantages of their use and effect on vision and the potential benefits for contact lens wearers. Candidates will know the principles of contact lens solutions and their supply. Candidates will know about how to identify and manage those customers who have not complied with contact lens care regimes or replacement schedules. Candidates will understand the principles associated with teaching the application and removal of contact lenses and wear and care guidelines	NOS Ref: Partial coverage of knowledge elements of OPTR18

Optional Unit 6

Title	Mathematics for optical assistants	
Level	3	
Credit	7	
Learning Outcomes *The learner will:*		Assessment Criteria *The learner can:*
1. Understand how to perform arithmetical calculations.		1.1 Perform arithmetical operations
2. Know how to use a scientific calculator to solve mathematical problems in an optical environment.		2.1 Perform arithmetical operations in sequence using mathematical priorities 2.2 Change the sign of a number or function 2.3 Rearrange basic formulae 2.4 Calculate angles, sines, cosines and tangents (using a calculator) 2.5 Calculate percentages and increase or decrease values by given percentages 2.6 Demonstrate understanding of reciprocal values
3. Understand the principles of geometry and know how to apply them in optical practice		3.1 Describe the geometry of a circle using appropriate terminology 3.2 Calculate the parameters of a circle 3.3 Define and calculate the parameters of triangles 3.4 Calculate angles within a plane figure
4. Be able to extract information from line and bar graphs		4.1 Draw a line graph from a table of data 4.2 Draw a bar graph from a table of data 4.3 Extract graphical data 4.4 Interpret graphical data
5.Solve problems involving simple algebraic expressions		5.1 Solve simple equations 5.2 Evaluate simple algebraic expressions
Additional Information about the unit		
Unit Aim(s)	In this unit the learner will be able to understand and apply the mathematical principles used in an optical environment.	NOS Ref:

Candidates who passed this unit at Level 3 or have achieved a GCSE (Grade C or equivalent, or above) in Mathematics within the last five years will be granted exemption from this unit.

Optional Unit 7

Title	Supporting the Provision of Low Vision Aids in Optical Practice
Level	4
Credit	8

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the terms relating to low vision.	1.1 Describe what may be considered to be "low vision" 1.2 Explain the terms "Visual Acuity", "Vision", "Sight Impaired, "Severely Sight Impaired" and "Low Vision Aid" 1.3 Describe the visually impaired registration pathway 1.4 State the criteria for patient registration as Sight Impaired and Severely Sight Impaired
2. Understand the importance of the case history for patients with low vision.	2.1 Describe the key elements of case records for low vision patients. 2.2 Describe the emotional stages of low vision and the impact on a patient's family and friends 2.3 Discuss the importance of a patient's home circumstances 2.4 Discuss the importance of a patient's medications, medical, ocular, and other conditions 2.5 Discuss the importance of a patient's family's ocular history 2.6 Discuss the importance of ocular or other mobility problems 2.7 Discuss the importance of a patient's occupation and/or hobbies
3. Understand the anatomy of the retina, and anterior chamber and related structures and the relevant pathological conditions.	3.1 Describe the gross anatomy of the retina. 3.2 Explain the pathological conditions affecting the retina and the effect of these conditions on an individual's vision and visual performance 3.3 Describe the gross anatomy of the anterior chamber and related structures 3.4 Explain the pathological conditions affecting the anterior chamber and related structures and the effect of these conditions on an individual's vision and visual performance
4. Understand the importance of illumination for low vision patients	4.1 Describe the terms and units involved in photometry. 4.2 Discuss the levels of illumination required for specific tasks. 4.3 Identify how extra illumination may be provided 4.4 Discuss the effect of contrast on a patient's vision

5. Understand the care requirements for people with low vision	5.1 Describe visual and needs assessment procedures for patients with low vision. 5.2 Explain the relationship between distance and near visual acuity and the magnification requirements. 5.3 Discuss the types and use of optical and non-optical low vision appliances. 5.4 Discuss the other organisations which support low vision patients and the types of support available
6. Understand the use of low vision appliances	6.1 Explain the benefits and limitations of low vision appliances. 6.2 Discuss the types of patient advice and training required, so that the prescribed visual aids are used effectively 6.3 Discuss the limitations of the optical assistant's role

Additional Information about the unit		
Unit Aim(s)	To understand the principles of the management of patients with low vision and the types, principles, designs and use of low vision aids. To understand the need for additional support and the sources of such support for low vision patients	NOS Ref: Partial coverage of knowledge of elements of OPT1, 2,4,15 and 16

Optional Unit 8

Title	Anterior eye and ocular supplements	
Level	4	
Credit	8	
Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*	
1. Understand the use of refractive surgery to correct vision	1.1 Describe the difference between elective refractive surgery and clinically necessary refractive surgery 1.2 Describe the current commonly performed methods of refractive surgery 1.3 Explain the implications for the patient of each type of surgery 1.4 Broadly describe typical pre-operative, post-operative and aftercare procedures 1.5 List possible complications during and after refractive surgical procedures 1.6 Explain the implications and factors for consideration by patients who undergo refractive surgery 1.7 Explain the implications for the optical practice when patients undergo refractive surgery	
2. Understand the identification and management of Blepharitis	2.1 Explain the condition and the causes of Blepharitis 2.2 State signs and symptoms of Blepharitis 2.3 Describe strategies for management of Blepharitis 2.4 Explain the potential consequences of not managing Blepharitis 2.5 Give guidance on how to use appropriate product for the management of Blepharitis	
3. Understand the identification and management of Dry Eye	3.1 explain the condition and causes of Dry Eye. 3.2 State the signs and symptoms of Dry Eye 3.3 Describe strategies for management of Dry Eye 3.4 Explain the potential consequences of not managing Dry Eye 3.5 Explain the differences between ocular lubricants 3.6 Give guidance on how to use appropriate product for management of Dry Eye	
4. Understand the use of Ocular Nutritional Supplements	4.1 Identify ocular conditions which may benefit from nutritional supplements 4.2 Describe the potential advantages and risks of taking ocular nutritional supplements 4.3 Explain the evidence base for Macular nutritional supplements 4.4 Give guidance on how to choose appropriate supplements and approach suitable suppliers.	
Unit Aim(s)	Candidates will demonstrate an understanding of issues arising in practice concerning refractive surgery, common conditions of blepharitis and Dry Eye and will be able to advise customers on appropriate use of nutritional supplements.	NOS Ref: NOS Ref: Partial coverage of knowledge of elements of OPT2, 6, 15, 16 and 18

Optional Unit 9

Title	Theory of Optics	
Level	4	
Credit	12	
Learning Outcomes *The learner will:*		Assessment Criteria *The learner can:*
1. Understand the propagation of light formation.		1.1 Draw diagrams showing the formation of shadows 1.2 Solve problems by means of similar triangles or formulae to obtain the dimensions of the umbra and penumbra 1.3 Draw diagrams showing the formation of the image produced by a pinhole camera 1.4 Describe the theory of the pinhole camera
2. Understand reflection		2.1 Define the terms incident ray and normal ray 2.2 Construct a ray diagram showing the formation of a virtual image produced by a plane mirror 2.3 Solve geometrical problems on the size and position of the image produced by a plane mirror 2.4 Define the terms centre of curvature, principal axis, and radius of curvature of a curved mirror 2.5 Construct ray diagrams (to scale) to show the formation of images produced by curved mirrors and use these rays to produce diagrams for the images produced by all possible positions of the object 2.6 Use the mirror formulae to solve numerical problems
3. Understand refraction at a plane surface		3.1 Use a graphical construction for a ray trace for refraction 3.2 Define critical angle 3.3 Calculate refraction produced by a parallel sided glass block. 3.4 Show that sin i_c = n'/n and use this to calculate various values of i_c. 3.5 Solve numerical examples, which involve total internal reflection occurring in a prism .
4. Understand refraction at curved surfaces		4.1 Derive the fundamental paraxial equation for refraction at a single spherical surface

	4.2 Draw diagrams illustrating the first and second focal lengths of converging and diverging surfaces 4.3 Apply Newton's Equation for a single refracting surface. Use this equation to solve numerical examples
5.Understand photometry	5.1 Define the laws of photometry, and use the resulting equations to solve numerical problems. 5.2 Define the quantity reflectance and solve numerical problems involving this quantity 5.3 Define transmittance of a transparent body and solve numerical problems involving this quantity.
6. Understand the use of colour in optics	6.1 Define hue, luminosity and saturation 6.2 Relate the colour sense to wavelength, indicating approximately the 'blue, green and red' regions of the spectrum 6.3 Define the terms pure and impure colour, vivid and pastel shades and bright and dark colours. 6.4 Define primary and complementary colours.

Additional Information about the unit		
Unit Aim(s)	In this unit the learner will be able to understand and apply the principles used in an optical environment.	NOS Ref:

Optional Unit 10

Title	Theory of Ophthalmic lenses
Level	4
Credit	12

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the nature of Ophthalmic Prisms and Prismatic Effects	1.1 Define the terms: I. refracting edge II. principal section III. apical angle 1.2 Derive the relationship for a small angled prism: d = (n-1)a 1.3 Solve numerical examples on deviation (in degrees or prism dioptres) produced by a small angled prism. 1.4 Describe how to construct a tangent scale capable of measuring the: I. power of a prism in prism dioptres II. deviation produced (in degrees) III. apical angle (in degrees) 1.5. Compound any number of prisms into a single resultant 1.6 Resolve a single prism into two components. 1.7 Split prism power between the two eyes. 1.9 Describe the action of the Rotary Prism (Risley Prism). 1.10 Use Prentice's Rule to calculate the magnitude and direction of the prismatic effect at any point on a lens. Either the decentration or the distance of the point from the optical centre of the lens may be given. The lenses specified may be positive or negative spheres, plano-cyls or sph-cyl (but with the cylinder axis restricted to 90 and 180). The prismatic effect may be required as a single resultant value or as vertical and horizontal components. 1.11 Use Prentice's Rule to calculate the magnitude and direction of decentration required to produce a specified amount of prism for a given prescription for the types of lenses listed in 1.10. The decentration may be required as a single resultant value or as vertical and horizontal components. 1.12 Explain what is meant by differential (relative) prism. 1.13 Find the differential prism for a pair of lenses (for astigmatic lenses, axes will be restricted to 90 and 180).
2 Understand elements of Ametropia	2.1 Define vertex distance and spectacle distance and their significance for high lens powers 2.2 Calculate effective powers with spectacle lenses at different vertex distances.

3 Understand Line Foci and Disc of Least Confusion	3.1 Draw a diagram showing the nature of the pencil refracted by a cylindrical lens 3.2 Draw a diagram showing the nature of the pencil produced by a sph-cyl lens. 3.3 Apply the vergence formulae used to locate the positions of the line foci, the length and direction of the line foci, and the position and diameter of the disc of least confusion 3.4 Use the formula from 3.3 to solve numerical calculations on astigmatic pencil problems

Additional Information about the unit		
Unit Aim(s)	In this unit the learner will understand the nature of ophthalmic lenses and their use	NOS Ref:

Optional Unit 11

Title	Business principles for optical practices
Level	4
Credit	8

Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Understand the factors for success of an optical retail practice	1.1 Evaluate the importance to an optical practice of: i) Demographics ii) Practice location iii) Clinical capability iv) Ownership and financial support 1.2 Discuss National Health structures and funding and their impact on an optical practice 1.3 Discuss business relationships with retail and health sector partners
2. Understand how professional organisations and trade bodies influence the restrictions on marketing and advertising in optical practice	2.1 Explain the roles of professional organisations and trade bodies that influence marketing communications 2.2 Summarise the regulations that influence marketing communications within the optical sector
3. Understand and evaluate the effectiveness of different marketing techniques	3.1. Analyse the relative strengths and weaknesses and the changing roles of the principal areas of marketing communications in the optical market place including

	(a) Advertising (b) Direct and digital marketing (c) Public relations (d) Sales promotions 3.2. Summarise popular cultural and social trends that may influence advertising 3.3 Review the process and benefits of integrated marketing communications 3.4 Explain the links between branding, public relations and marketing communications performance 3.5. Explain the different focus of organisations offering creative, channel, platform and production services 3.6. Review the uses, benefits and limitations of different channels and platforms 3.7. Explain the importance of evaluation and testing
4. Understand the financial impact of decisions taken by optical assistants	4.1 Explain the differences between cost price versus selling price (eg would expect discussion of VAT, recovery of costs, profit margin) 4.2 Discuss the impact of minimum order levels, delivery charges, payment periods, interest charges and discount offers on an optical practice 4.3 Discuss the requirements for financial record keeping
5. Understand systems typically used within an optical practice	5.1 Explain a typical customer recall system 5.2 Describe the key features of an effective stock control system 5.3 Using information provided, propose a system for improving performance within an optical practice

Additional Information about the unit		
Unit Aim(s)	Candidates will demonstrate understanding of an optical practice as a business.	NOS Ref: parts of OPTR 4, 6, 12, 14, 18

Candidates will need to submit a written business/development plan which brings together the learning developed during the course and which could be of benefit to their own practice. The assessment will be in written form and should involve self-assessment, reflection and ideas for improvement

PART II

Mandatory Unit 12

The aim of this Unit is to test the response of the candidate to typical questions and situations which might arise in practice.

Practical Examination - Mandatory Unit 12

Title	Optical Skills in Practice
Level	5
Credit	12
Learning Outcomes *The learner will:*	Assessment Criteria *The learner can:*
1. Patient communication	1. Explain the principal elements of a typical eye examination. 2. Explain expected variations for customers of different ages and with existing visual conditions 3. Summarise a customer's case history from a record card 4. Interpret a spectacle prescription written in British Standard notation 5. Explain the likely purpose of prescription spectacles 6. Explain the advantages and disadvantages of options based on the prescription provided 7. Provide guidance on the use of new spectacles and contact lenses according to the prescription provided 8. Provide information to the customer on entitlements within the candidate's national health service framework 9. Discuss the limitations of the optical assistant's responsibilities 10. Explain the principles of data protection when responding to customer enquiries 11. Appropriately respond to customer' concerns

2. Spectacle repairs and adjustments	2.1 Replace spectacle screws 2.2 Re-insert spectacle lenses to a variety of frames and mounts 2.3 Replace nose pads to a metal frame with pads on arms 2.4 Reset spectacles frames and mounts 2.5 Accurately fit a variety of spectacle frames and mounts to a patient 2.6 Demonstrate the safe and appropriate use of a variety of workshop equipment
3. Spectacle dispensing	3.1 Select correct fitting frame from stock selection 3.2 Accurately measure monocular and binocular pupillary distance 3.3 Accurately measure monocular and binocular near centration distances 3.4 Accurately measure monocular heights for single vision, bifocal and PPLs. 3.5 Accurately measure vertex distance.
4. Spectacle verification	4.1 Accurately use a manual or automated focimeter to record the power of single vision, bifocal and progressive power lenses. 4.2 Identify lens form and type 4.3 Correctly specify the presence of any tints or coatings 4.4 Correctly measure centration and parameters of a pair of glazed spectacles
5. Optical Screening	5.1 Demonstrate appropriate hygiene & safety procedures 5.2 Give accurate and concise user instructions 5.3 Perform accurate non-contact tonometry 5.4 Perform accurate visual field screening 5.5 Demonstrate the limitations of an optical assistant's authority
6. Contact Lenses	6.1 Discuss the advantages and disadvantages of different materials, modalities and forms of contact lenses 6.2 Demonstrate appropriate hygiene & safety procedures to contact lens wearers 6.3 Demonstrate safe customer instruction for soft contact lens insertion and removal 6.4 Offer appropriate advice regarding contact lens solutions, comfort drops and case care 6.5 Explain the need for appropriate aftercare procedures

Unit Aim(s)	Candidates will demonstrate the skills expected of an optical assistant.

NOS Ref: Knowledge of elements of all OPTR standards

OPTR1	Contribute to communications within the optical practice/store This standard covers how to effectively handle communications between customers and the practice/store in which you work, including, incoming and outgoing telephone calls. It includes the receiving and relaying of oral and written and/or electronic messages.
OPTR2	Meet customers of the optical practice/store and provide information This standard covers how to meet the customers who visit the optical practice/store and identify their needs and priorities. It includes providing information and effectively answering questions so as to provide a service that encourages good relationships and customer loyalty.
OPTR3	Deal with customer concerns, complaints and dissatisfactions This standard covers how to deal with customer concerns, complaints or dissatisfaction to do with products and services. It includes establishing the cause and nature of the complaint and how to respond. It also covers dealing with exchanges, refunds and arranging for repairs.
OPTR4	Contribute to the record keeping of the optical practice/store This standard covers how you will contribute to the effective administration and record keeping of the optical practice/store. It includes the making of appointments, operating recall systems, ensuring good record-keeping, the importance of confidentiality and processing NHS and other entitlements for customers.
OPTR5	Contribute to health and safety in the optical practice/store This standard covers health and safety in the practice/store. It includes carrying out emergency procedures reporting accidents and taking actions to prevent further accidents. It also includes disposing of waste materials cleanly and safely.
OPTR6	Select and sell optical products to meet customer needs This standard covers selling skills and explaining the features and benefits of single vision and bifocal spectacles, coatings, accessories and spectacle lens care products. This includes explaining the pricing options, dealing effectively with objections and closing the sale.
OPTR7	Determine facial, frame and spectacle lens measurements This standard covers the routine measurement of facial, frame and spectacle lens dimensions for single vision and bifocal lenses, the assessment of the suitability of frames for the customer and the completion of the necessary documentation.
OPTR8	Process optical prescriptions and order optical products This standard covers the reading, measurement, documentation and understanding of prescriptions for spectacles. This includes the transposition of prescriptions to the required format and the processing of prescriptions and optical products as required by the practice/store.
OPTR9	Provide a spectacle collection service This standard covers receiving spectacles from the supplier, making any small adjustments to suit the customer's specific needs and completing the sale with the customer. The standard also includes advising the customer on the handling and care of spectacles, accessories and after-sales service.
OPTR10	Provide a spectacle repair and adjustment service This standard covers the repair and adjustment of spectacles. It includes identifying with the customer the problem, calculating the cost of the repair or adjustment and arranging for or making the repair or adjustment.

OPTR11	Provide a contact lens collection service This standard covers the supply of contact lenses including checking the prescription and demonstrating to the customer how to fit, care and store contact lenses. It also includes the after-care arrangements, out-of-hours service and arrangements for further appointments.
OPTR12	Display and merchandise product in an optical practice/store This standard covers the planning, setting up and stocking of the spectacle/frame display or other presentation area according to the needs of the practice/store. It also includes labelling of spectacles or other products for display and the basics of stock control for other optical products.
OPTR13	Carry out routine optical screening procedures This standard covers the routine screening of customers for non-contact tonometry, auto-refraction and field screening. The tests and procedures and data collection are carried out under the supervision of a qualified person.
OPTR14	Deploy optical practice/store resources to meet identified requirements This standard is about your responsibilities for ensuring the smooth running of the optical practice/store. It involves making sure that the practice resources are understood and in place according to the practice/store requirements in order to achieve its business objectives. This includes ensuring that your practice/store holds the necessary optical stock levels needed to meet business requirements. The optical products that are described here are those that are relevant to your practice/store so they might involve display frames, contact lenses and other products.
OPTR15	Manage optical clinic This standard describes the day-to-day supervision of the optical clinic ie managing the appointment list of customers attending for eye examinations, sight tests, contact lens-related activities and for other optical reasons. It includes the preparation for the clinic and dealing with post-clinic activities. You need to be able to assess the customer's priority and identify and deal with emergencies. You will be managing the practice's/store's resources as well as dealing with technical issues.
OPTR16	Provide optical information and/or advice to individual customers This standard describes the competence you need to provide information and advice concerning optical matters. You need to be able to distinguish between routine enquiries and those that require specialist or emergency help and what you should do about it. This standard therefore requires you to have sufficient technical optical knowledge and understanding to resolve issues referred to you by your colleagues and refer those beyond your level of authority to the correct optical practitioner.
OPTR17	Determine frame and spectacle lens measurements This standard describes the competence required to ensure the correct fit of the spectacle frames and to ensure that the lenses are positioned to give optimum visual benefits. This standard requires the knowledge needed to deal with lens designs including those for prescriptions up to + 9.75D sphere and cylinders up to + 6.00DC
OPTR18	Sell optical products This standard describes the competence required to identify the customer's existing optical products, to present alternatives and improvements including the full range of spectacles and contact lenses, ensuring that the financial aspects of the transaction are agreed and completed.
OPTR19	Supervise the contact lens service This describes the standard required to set up and supervise the supply of contact lenses to the customer, providing the verbal and written advice and information required for the safe and effective wear of contact lenses