

HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA	
GUIDELINES FOR BOARD EXAMINATIONS FOR	Version 3
DISPENSING OPTICIANS	
PROFESSIONAL BOARD FOR OPTOMETRY AND DISPENSING OPTICIANS (PBODO)	
Original	Issued: May 2019
Frequency of Review	2 years
Responsible Person: PBODO	Executive Company
	Secretariat:
	Deputy Company Secretary

Approved by: HPCSA PROFESSIONAL BOARD FOR OPTOMETRY AND DISPENSING OPTICIANS

Active date: May 2019

Date reviewed	Date of next review	Reviewed by	Action
April 2020		ETRC	
January 2022	April 2023	ETRC	

1. <u>PURPOSE</u>

- 1.1 These guidelines are intended to assist an applicant who wishes to register as a Dispensing Optician with the Professional Board for Optometry and Dispensing Opticians (PBODO) of the Health Professions Council of South Africa (HPCSA) in preparation for the National Board examination.
- 1.2 To outline the core competencies that the candidate will be evaluated on during the national board examination.
- 1.3 To guide the examiners and moderators in preparation for the national board examination and during assessment.

2. <u>SCOPE</u>

These guidelines apply to the Dispensing Opticians who wish to register with the board in terms of the Act; and outline the core competencies to be evaluated within the national board examination prior to entry into the profession of dispensing opticianry.

3. <u>REGULATIONS</u>

- Achievement of ALL the core competencies must be demonstrated during assessment.
- Assessment will take the form of two practical proficiency examination papers of three hours each.
- During these practical proficiency examinations, the candidate will be required to perform, demonstrate or describe any procedure relevant to the field of ophthalmic dispensing described in these regulations.
- A pass mark of **60%** will be the required in each of the sections.

4. OUTCOMES TO BE ASSESSED

EXIT LEVEL OUTCOME 1

1 Apply professional and clinical responsibilities, scientific skills as well as optical and allied technologies to the benefit of visually compromised patients.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
1.1 Demonstrates current ophthalmic/ optical knowledge, as well as relevant clinical and technical expertise.	 Detailed ophthalmic/optical knowledge, clinical and technical skills can be demonstrated.
1.2 Demonstrates a broad knowledge and understanding of vision science and public health, including knowledge in optics and an understanding of the development, structure and function of the visual system, as well as the South African health policy, ethics, research methodology and health promotion.	 Developments in clinical and technical knowledge, ophthalmic/optical skills and techniques, and technology can be evaluated for their efficacy and relevance to clinical practice. New and existing procedures and techniques are applied and adapted to improve patient care. Professional approach to communicating and analysing relevant eye health information is used to improve patient care.
1.3 Practices without the need for supervision.	 Professional independence in ophthalmic /optical decision- making and conduct is evident. Possible consequences of actions and advice are considered and responsibility for one's own actions is accepted. Advice is sought from relevant health professionals when the practitioner deems a further opinion is required.
1.4 Utilises resources from eyecare and other organisations to enhance patient care.	 The various functions of and resources available from, ophthalmic/optical and other organisations are understood and utilised.
1.5 Understands the principles of the planning, establishment, development and maintenance of an ophthalmic/optical practice.	

1.6 Understands the legal obligations involved in ophthalmic/optical practice	 Optometric professional fee structures are understood Basic knowledge and understanding of vision testing and diagnosis, binocular vision and accommodation anomalies, visual space perception, and motor anomalies of vision. Familiarity with relevant National and Health Council Acts can be demonstrated. Statutory and common law obligations relevant to practice are understood.
1.7 Promotes issues of eye and vision health/care to the community	 Information on matters of visual health and welfare (including the need for regular eye examinations), and product and treatment developments that can be provided. Advice is provided on eye protection in the home, at work and in recreational pursuits.
1.8 Understands factors affecting the community's needs for ophthalmic/optical services.	 Social responsiveness to community eye health needs is demonstrated. Knowledge and understanding of the philosophy of health care and the basic principles underlying community eye health is demonstrated.

2 Apply scientific health care skills, optical and allied technologies in the interactive consultation and dispensing of optical appliances to the patient while adhering to appropriate medico-legal ethics, health and safety regulations and codes of conduct.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
2.1 Communicates with the patient.	 Modes and methods of communication are employed which take into account the physical, emotional, intellectual and cultural background of the patient.
2.2 Makes general observations of patient.	 Physical and behavioural characteristics of the patient are noted and taken into account.
2.3 Provides advice and information to patients and others.	 Information is clearly and considerately communicated to patients, patient care-givers, staff, colleagues and other professionals. Liaison with other professionals to the benefit of the patient is evident.

	 Significant or unusual clinical presentations can be recognised and findings communicated to other practitioners involved in the patient's care.
2.4 Obtains the case history.	 The reasons for the patient's visit are elicited in a structured way. The specific occupational, social and environmental requirements for the prescription are accurately determined Information required for the prescription and patient management is elicited from the patient and /or others.
2.5 Acts in accordance with the standards of behaviour of the profession	 Ophthalmic services provided are the most appropriate, given the relevant patient-specific information. Patient interests are held ahead of self-interest. Behaviour demonstrates an ethical approach to both professional and patient relationships.
2.6 Provides for the care of patients with special needs	 Patients who qualify for subsidised eye care schemes are identified and advised of the services to which they are entitled. Knowledge of special needs-related optical/ophthalmic technologies and the appropriate utilisation thereof is demonstrated. The ability of when to provide domiciliary ophthalmic/optical care is demonstrated.
2.7 Ensures emergency optometric/optical care is available or referred appropriately.	 The ability to identify ocular emergencies and/or urgencies and act/refer appropriately. Organise emergency facilities/services for appropriate referral when the primary optometrist/dispensing optician is unavailable.
2.8 Obtains and interprets patient information from other professionals.	 Pertinent information from previous assessments by other professionals is sought and interpreted (with the patient's permission).

3 Interact consultatively in the management, education and final dispensing of eye care products, to visually compromised patients, with knowledge of the minimum standards of optical care.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
3.1 Designs a management plan for each patient and implements the plan agreed to with the patient.	 The diagnosis according to the spectacle prescription is presented and explained to the patient or guardian. Consideration is given to the relative importance or urgency of the presenting problems and examination findings. Management options to address the patient's needs are explained. A course of management is chosen with the patient, following counseling and explanation of the likely course of the condition, case management and prognosis. The informed consent of the patient is obtained for the initiation and continuation of treatment. Patients requiring ongoing care and review are recalled as their prescription indicates, and management is modified as indicated.
3.2 Apply scientific dispensing skills, including optical and allied technologies in the delivery of eye care and corrective devices to visually compromised individuals	 Appropriate facial and frame measurements are accurately taken. Use of tools, scientific equipment and specially designed ophthalmic instrumentation for ophthalmic prescription work can be demonstrated. The suitability of spectacles as a form of correction for the patient is assessed. Perform accurate ophthalmic calculations and measurements to solve theoretical and practical ophthalmic problems. Effective manipulation of the ophthalmic appliance for the benefit of the patient
3.3 Demonstrates dispensing skills required in the management of patients' vision problems, ocular refractive states, and the use of optical appliances to correct such problems.	 The patient's refraction, visual requirements and other findings are applied to dispense the spectacle prescription. Comprehensive knowledge of lens designs and products and their suitability for the patient and prescription. An understanding of the materials and processes involved in the construction of frames and related appliances. An ability to select the most appropriate frame or mount for the optical appliance.
3.4 Demonstrates the knowledge to prescribe optical corrective devices	 A sound knowledge and understanding of geometric, visual, ophthalmic, and physical optics. Shows ability to select appropriate optical devices for the optimal correction of the patient's condition

3.5 Contact Lens Instruction, Verification and Modification	 Contact lenses are correctly ordered and on receipt, parameters are verified before the lenses are supplied to the patient. The patient is instructed in matters relating to ocular health and vision in contact lens wear, contact lens care and maintenance. Contact lens modifications are in line with the requirements of the prescriber
3.6 Dispenses low vision devices and trains visually impaired patients in the use of residual vision.	 A range of low vision devices are demonstrated to the patient according to the prescriber Cognisance is taken of the pateint's adaptive state (psychological) to their to disability. Low vision devices suited to the patient's visual requirements and functional needs are dispensed. The patient is instructed in the use of low vision device to maximise residual vision.
	 The patients use of the low vision device is monitored and additional or alternative devices are dispensed. The patient is informed of and, if necessary, referred for other rehabilitative services.
3.7 Optical prescriptions are accurately analysed	 The prescription is correctly interpreted and responsibility for dispensing is accepted. The prescription is analysed according to: What the prescription is for; Whether there are any errors in the prescription Identify any potential problems that the prescription may cause; All the possible solutions to fulfil the requirements of the prescription The optimal correction to be dispensed for the patient
3.8 The optimum visual correction is dispensed in exact accordance with the prescription	 The patient is assisted in selecting the visual appliance Lenses are ordered and fitted to spectacle frames in accordance with accepted standards. The appliance is verified against the prescription prior to delivery.
	 The appliance is adjusted and delivered and the patient is instructed in the proper use and maintenance of the appliance and of any adaptation effects, which may be expected.
3.9 Refers the patient.	 The need for referral to other professionals for assessment and/or treatment is recognised and discussed with the patient. A suitable professional is recommended to the patient. Timely referral, with supporting documentation, is made to other professionals.

	 Patients can be jointly managed with other health care practitioners.
3.10 Co-operates with the optometrist/ ophthalmologist in the management of patients.	 Adequate knowledge of effective patient management principles and techniques can be demonstrated competently. Use of ophthalmic screening technologies for eye health and refractive screening, including, but not limited to: Non-contact tonometer Visual Field Analyser Automated Keratometer / Corneal topographer Auto-refractor Fundus Camera Provides supportive eye-health and pre-operative counselling as instructed by an ophthalmologist.
3.11 Provides advice on vision and safety in the workplace and dispenses the appropriate device/s.	 treatment or assessment of complications. Understanding of factors that affect vision in the workplace or for recreational purposes is demonstrated. Advice is provided on eye protection, visual standards and visual ergonomics in the workplace. Individuals are counselled on the suitability of their vision and/or visual corrective devices for certain occupations and vice versa. Refer patients for certification of an individual's visual suitability for designated occupations or tasks e.g. screening for Drivers' lisence of a motor vehicle, skippers lisence, pilots liscence etc.

4 Record and maintain legible, secure data and patient information while adhering to appropriate medico-legal ethics, health and safety regulations and codes of conduct stated in the patient charter.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
4.1 Ensures that data is organised in a legible, secure, accessible, permanent and unambiguous manner.	 All relevant information pertaining to the patient is recorded in a format, which is understandable and is usable by the optometrist/dispensing optician and his/her colleagues. Patient records are kept in a readily retrievable format and are physically secure.
4.2 Maintains confidentiality of patient records.	 Understands the need to ensure that access to records is limited to authorised personnel. Information from patient records and/or obtained from patients is released only with the consent of the patient.
4.3 Functions within the ethical context of health care professions and according to the guidelines of the HPCSA and the Professional Board for Optometry and Dispensing Opticians.	 Relevant knowledge of professional ethics can be shown. Consideration of the patient as the primary concern within a multidisciplinary approach can be shown. The patient's rights to quality care are protected.

5. Manage and administer human, technical and other resources to ensure optimal, delivery of eye and vision care products/services within the context of the public and/or private health sector.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
5.1 A sound knowledge and understanding of practice management in order to administer the procedures and techniques in an efficient manner.	 Adequate knowledge of effective management principles and techniques can be demonstrated competently. A holistic approach to problem solving within an effective time frame can be shown. Effective short-term decisions regarding patients are made when the need arises. Effective long-term decisions regarding patients are made when the need arises.

5.2 Manage available financial resources so that only the necessary products or services are dispensed.	 Detailed knowledge of financial management can be demonstrated Awareness of costs involved in the procurement of equipment and stock can be shown. Knowledge of available financial resources can be demonstrated. Responsibility for purchases and sales of products or services can be shown.
5.3 Carry out quality control procedures to ensure that products comply with established standards.	 Specific parameters of acceptable/unacceptable variances pertaining to optical products are known and adhered to. Routine procedures are maintained to assess the quality of products. Recognise the need for maintenance and repair of practice instrumentation according to a maintenance schedule.
5.4 Apply management strategies to ensure a viable business entity in the public and private sector.	 Sound knowledge of business/practice management can be demonstrated Awareness of economy pertaining to affordability of eyewear and related services can be demonstrated.
	 Knowledge of correct financial management and accurate record keeping can be demonstrated. Knowledge of business and public sector protocol can be shown. Assessment of the necessity of specific machinery and stock can be made within contextual demands.
5.5 Manage human resources and comply with aspects of legislation affecting employers.	 Knowledge of human resources management can be demonstrated Knowledge of correct application of labour laws can be demonstrated.

Apply self- reflexive learning strategies to continually improve the opticallyrelated service within eyecare services appropriate to the specific needs of the patient.

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
 6.1 Identify and solve problems specific to the community/area in which service is offered. 6.2 Display responsible decision-making. 	 Use of critical and creative thinking can be applied. Problem solving with a team approach can be utilised. Relevant knowledge of the community/area can be ascertained. A sound knowledge and understanding of environmental/community dispensing. Skills in patient interviewing and counseling. Realistic management goals and strategies can be ascertained and implemented. Consequences of decisions can be understood and
6.3 Use eye health promotion programs to inform and educate people and communities on visual and ocular health and prevention of eye related problems within health care.	 accounted for. Basic eye hygiene can be described and taught to patients/persons. Advocacy on the health of the eye and visual system can be communicated simply and effectively to the patient and community. Preventative measures can be taught to allow the patient/person to maintain healthy vision function.

Perform vision screening procedures in order to identify refractive problems for the purposes of referral to the appropriate eye care practitioners.

SPECIFIED OUTCOMES	ASSESMENT CRITERIA
7.1 Perform vision screening in order to identify vision problems for the purposes of referral to the appropriate eye care practitioners	 Knowledge of patient's visual condition is correctly demonstrated A knowledge and understanding of ocular anatomy. A knowledge and understanding of normal and abnormal development of vision and refractive errors. A basic knowledge and understanding of ocular
	disease and ocular pharmacology
7.2 Screening for the presence of refractive errors	 Accurately determine Snellen Visual Acuity in order to refer appropriately Use of plus lens to determine presence of hyperopia & to refer appropriately
	 Use of pinhole to determine reduced acuity due to refractive error or pathology / amblyopia in order to refer appropriately

	 Use of ophthalmic screening technologies for refractive screening, including Autorefractor measurements
7.3 Appropriate management and referral of the patient to the correct health care practitioner (optometrist, ophthalmologist, general practitioner, hospital)	 The vision condition can be explained to the patient for the purpose of referral for diagnosis and treatment Screening results can be correctly recorded and referral letters appropriately compiled Community screenings are referred appropriately within the public sector structures.

Complete a comprehensive patient case portfolio consisting of 120 fully supervised patient case records together with a research proposal, presentation and dissertation.

SPECIFIED OUTCOMES	ASSESMENT CRITERIA
8.1 Completion of supervised experiential learning reflecting all aspects of dispensing optics in practice	 Optical prescription and device verification Fabrication and repair of optical devices Prescription analysis and interpretation Analysis and properties of ophthalmic materials and special optical appliances Dispensing and fitting an ophthalmic prescription
8.2 Submission of comprehensive patient case portfolio	 Completion of 120 prescribed case studies according to criteria for each subcategory Evidence for cases is correctly interpreted and presented Relevant measurements/ data have been considered Appropriate appliance / lens design is provided Adequate rationale is provided for dispensing the appliance / prescription
8.3 The ability to conduct entry level research and understand basic research methods	 Presentation of research proposal, mini- dissertation and research presentation

PRACTICAL PROFICIENCY EXAMINATION

SECTION 1: PRESCRIPTION VERIFICATION (90 minutes)

This section is subdivided into 4 parts. Each candidate is provided with a tray containing two pairs of glazed spectacles, an uncut progressive power lens and five lenses for description. A vertometer is provided for the first three tasks.

1. Spectacle checking- Verification of order

The candidate is required to check a pair of spectacles against an order form as though it were supplied to a practice. All items for rejection, as well as the nature of the fault must be indicated on the answer sheet provided. Accuracy in verification of prescription, fitting specifications, prism, materials and lens type should be demonstrated here. The candidate is not required to examine the lenses for defects.

2. <u>Glazed pair of bifocal spectacles for prism determination</u>

The candidate is to record all specifications, including prescription, fitting specifications, prismatic effect, material and bifocal type on the answer sheet provided. Prism readings are to be taken at the Datum Centre for distance, and at the near visual point (10mm down and 2mm in from Datum) for near.

3. <u>Progressive Power Lens</u>

The candidate is instructed to record on the answer sheet provided, all specifications for the given lens. These include prescription, addition, position, prism at major reference point, refractive index and lens type.

4. <u>Lens Description</u>

The candidate is required to fully describe five lenses according to type, material, form, edge, position, size, tints, coatings and defects. No power estimation is required for this task.

SECTION 2: PRESCRIPTION ANALYSIS VIVA (30 minutes)

This section tests the candidate's ability to analyse and interpret written prescriptions. The candidate is given various cases and is required to discuss them with the examiner, noting the following points: What is the prescription for? Are there any errors? What are the potential problems? What are the possible solutions? The cases may also contain errors of transposition, omission of vertex distance on high prescriptions or it could be written incorrectly according to South African standards. The candidate must therefore have a thorough understanding of the following aspects of ophthalmic dispensing:

- Writing a prescription given the add and the relationship between add power and working distance
- Transposing to alternate cylinder form
- Lens availability, suitability and basic criteria for selection
- Errors in prescription writing and the obligation to refer back to the prescriber
- The purpose of prescribed prism including prism splitting and base directions
- Various methods of tinting lenses
- The significance of the vertex distance and effectivity
- Problems when dispensing high-powered lenses
- Dispensing for aphakia
- Tinted lenses including high-powered lenses
- Occupational dispensing e.g. VDU user
- The need for safety eyewear for sport and occupation,
- Aspects and standards of safety and protective lenses
- Balance lenses
- Anisometropic and aniseikonic prescriptions
- Dispensing for binocular vision anomalies
- Paediatric dispensing

SECTION 3: FRAME MATERIALS, REPAIRS AND ADJUSTMENTS (90 minutes)

This section tests the candidate's skill in repairing and adjusting frames, and the use of tools. There is also an oral session covering frame materials, types and parts and the use of tools, as well as a section dealing with analysis of transmission graphs.

Part A: Recognition and knowledge of frame types and materials (20 minutes)

- Identification of plastic frame materials, their properties and glazing and the effects of heat on such frames.
- Identification of plastic materials in terms of appearance, knowledge of physical properties and chemical reactivity.
- Accurate identification of frame types e.g. Numont, nylon supra, library, etc.
- Knowledge of temple and bridge types and fittings
- Glazing methods: bevels, grooving, drilling, cold and warm glazing
- International safety standards, terminology and testing
- Special Optical Appliances e.g. prescription goggles, protective and industrial eyewear, low vision devices, recumbent specs, etc.

Part B: Adjustment and Manipulation: Use of Tools (30 minutes)

The candidate is given two misaligned frames- one plastic and one metal, and is required to bring them into standard alignment before fitting them on the patient. If either frame does not fit correctly in respect of comfort and adjustment, the candidate receives zero for the section.

The candidate will be assessed on their knowledge of tools and will be required to demonstrate their use and knowledge of their limitations.

Part C: Frame Repairs (20 minutes)

The candidate is required to completely dismantle a pair of spectacles (metal frame) and, after inspection by the examiner, to reassemble it correctly, ensuring that the correct screws are used for each joint, sides are on the correct joints and that lenses have been inserted into the correct rims at the correct axes.

The candidate will be given one of the following additional tasks:

- Remove and spring in lenses to a plastic frame
- Remove a broken nylon cord from a supra, re-cord and refit the lens
- Shorten and re-pin a half joint to a plastic side
- Shorten a metal side and refit the plastic end covers

Part D: Spectral Transmission Curves (20 minutes)

The candidate is provided with a variety of ophthalmic lens transmission curves and is required to analyse each one in terms of material, tint, optical density and function. The candidate will also be required to interpret the absorption and transmission characteristics for ultra-violet and infra-red radiation.

SECTION 4: DISPENSING, ORDERING AND PRICING (90 minutes)

This section tests the candidate's knowledge and skill in frame selection, fitting, dispensing, ordering and pricing. The candidate is supplied with two written prescriptions, one bifocal/ trifocal and one for varifocal lenses. The candidate will be advised on the occupation and visual requirements of the patient provided.

During these sessions, the examiner will assess the candidate's ability to fit the patient with a fixed bridge frame for bifocals, and a pad bridge frame for varifocals.

The candidate must:

Choose a suitable frame from those provided

Select the appropriate lens design, material, and tint where necessary

Write out the order correctly on the appropriate order form

Provide all the relevant details of the prescription and special instructions

Although the candidate may discuss the subject's occupation in more detail, it is important to note that this section's focus is on frame fitting, dispensing and lens positioning. Prescription analysis is addressed more thoroughly in Section 2.

The examiner and candidate will discuss the following during the assessment:

Choice of lens type Cosmetic choice of frame Measurements required for each fitting and the effects of altering them Optical centration Bifocal and trifocal segment positions Progressive power lens fitting cross positions Vertex distance measurements Minimum size uncut.

During the discussion, the examiner will ascertain the candidate's knowledge on standards relating to frame fitting. This would include systems of frame measurement (boxing/datum), specific frame measurements, centration measurements and their definitions (PD, Mono PD, NCD), vertex distance, etc.

It should be emphasised that candidates will be assessed on accuracy of measurements and completeness of the information on the order forms provided.

In the final session, the candidate is required to provide codes and price for two prescriptions according to the needs of the patient – specialised personalised spectacle lenses. Pricelists will be provided and the candidates will be assessed on their proficiency in selecting the correct descriptions and using the correct codes for each case.