



The European Council of Optometry and Optics

Re-Accreditation of the Department of Optometry

**Bachelors in Optometry programme at Beuth University,
Berlin, Germany**

**Against the Knowledge Base, Competencies
and Portfolio of the
ECOO European Diploma in Optometry
12-14th June 2022**

Report completed 4th October 2022

1. Background

The Department of Optometry in the Institute Technik Berlin, Beuth University, Berlin was one of the early programmes in the ECOO European Diploma in Optometry Accreditation scheme to undertake the accreditation process, and achieved full accreditation of their programme in 2016.

The Department of Optometry continues to run the BSc Optometry programme plus an additional Master's programme. To meet the requirements of the European Diploma, candidates must complete the BSc, and subsequent to graduating (up to two years), complete a Portfolio of Clinical Experience for the European Diploma in Optometry. This includes documentation of the 150 cases, 20 of which are presented as detailed case studies covering a variety of requirements.

The timing of the re-accreditation visit was delayed by the global pandemic COVID-19. There were significant disruptions to delivery of education and restrictions on work and travel throughout 2020 and 2021. In response to this the European Qualifications Board for ECOO extended the accreditation period until such time as a face-to-face visit could be conducted. The original timing for this visit was January 2022, but was delayed until June due to ongoing travel restrictions in winter 2021/22. Prior to the re-accreditation visit, documentation was received from the course team, led by Prof Dr. Holger Dietze.

The model of education in Germany for optometry is mixed, with the majority of institutions delivering programmes for augen-optiker meister training, and the delivery of primary eye care in Germany is conducted by ophthalmologists, augen-optiker meisters and optometrists. Beuth University has been an early adopter of modelling their BSc Optometry programme on the European Diploma in optometry, at Level 3 of the World Council of Optometry Scope of practice. Optometrists in Germany do not have the right to use diagnostic drugs to deliver eyecare.

The Visitor Panel consisted of:

Dr Robert Chappell

Dr Julie-Anne Little

Prof Dr Daniela Nosch

2. Overarching analysis of the programme

There are 6.3FTE staff in the Department of Optometry, including full Professors, one of whom is a practising ophthalmologist, and supporting technical staff. The

team is led by Prof Holger Dietze. During the visit, the panel also met the Dean Prof Dr Roland Kirchberger

Student numbers are approximately 40 per year on the BSc programme, with a maximum intake of 60 in year 1 selected by grades. Due to a change in regulations offers are now made to admit students onto the programme without a dispensing apprenticeship (augenoptiker), and now there is approximately a 50:50 split.

Since the previous accreditation visit, the clinical facilities for optometry have expanded, and offer significant space for clinical practice for students on the BSc programme, enabling practice in refraction, keratometry, slit lamp and Volk techniques. There is also a laboratory for basic optics and for the glazing and assembly of spectacles. The volume of space that the Department has access to appears appropriate for the delivery of the course, and the quality and range of clinical equipment shown to the Visitors was impressive.

There are 10 fully equipped clinical testing rooms with additional access to Humphrey perimetry and retinal imaging facilities, including OCT and Optos. Members of the public (predominantly University staff) that wish to attend for an eye examination contact the technician in charge of clinical timetabling and are added to a waiting list. The service is free and includes the dispensing of spectacles, as there is no mechanism by which services could be paid for at the university. Brief ocular history is taken from prospective patients and the list is managed to ensure interesting cases are available. In the 3rd year of the programme, students undertake ~15 primary eye care examinations in each semester (5th and 6th) however this is done in pairs with students sharing the patient experience. Diagnostic drugs can be used in the clinic under the supervision of the ophthalmologist, though on questioning the students this occurred rarely. The staff supervision ratio for these clinics is 1:10. The university regulations typically state a staff/student ratio of 1:20 so a separate permission is granted on a yearly basis for the clinical aspects of the BSc Optometry programme.

For contact lenses, five patients per week attend clinics, and students work in groups of 2-3 to undertake C/L fittings and aftercares. This occurs over 10-12 weeks during the 5th and 6th semesters.

During the visit, the Visitors met with a sample of students (5-6) from each year of the BSc programme. There was a mixed profile of ages and backgrounds, with most currently working or with previous experience in optometric practice. There were largely positive contributions regarding the course teaching and feedback on assessments and progress, and a clear demonstration of active and wider engagement with the optometry profession. They were aware of the European Diploma in optometry and the requirements to fulfil it.

The students undertake the following placements during their BSc:

- Internship 1: in semester six, for non-augenoptiker students, there is an 8 week placement in practice focused on dispensing experience.
- Internship 2: For all students there is a 12-week placement in optometric practice or ophthalmology setting. Students organise these placement opportunities themselves but Prof Christian Kempgens coordinates this and provides a list of appropriate opportunities. While there are a number of students who work as optical assistants and undertake their placements in the same practice, they are encouraged to seek different opportunities. There are no detailed requirements for these placements in terms of criteria for supervision, and the practice does not sign off on aspects of the internship. It is also possible for students to take an industry-type placement for Internship 2, though if students go this route, they are advised that they will miss out on the clinical experience required for their European diploma.

The structure of the programme across three years builds on knowledge of optics and human anatomy and physiology to develop clinical skills and in-depth knowledge of ocular disease. However, there was limited information provided prior to or during the visit to determine the content of courses within the programme. In common with standard University regulations in Germany, there was an overarching one-page course description with a summary of topic area and methods of assessment. This made it difficult to determine how the specific learning outcomes of the European Diploma are met. Subsequent to the visit, access was granted for some courses in Moodle (the e-learning platform) and also a direct conversation with Prof Christian Meltendorf and Prof Holger Dietze where the content of a number of modules were reviewed in September 2022.

3. Analysis of the self-assessment document

Part A

A number of modules, chiefly in years 1 and 2 of the BSc Optometry programme, support the subject areas and learning outcomes for Part A with sufficient depth. Practical competencies are achieved through successful completion of assessments and evidenced in logbooks in modules B03 Subjective Refraction, B12 Ophthalmic Lenses and Dispensing I and B23 Ophthalmic Lenses and Dispensing II.

Decision: Standard Met

Part B

A large range of modules, across years 1, 2 and 3 of the BSc Optometry programme support the subject areas and learning outcomes for Part B with sufficient depth. These include modules on clinical investigative techniques and optometric practice, paediatric optometry and binocular vision, visual perception, ocular pathology and low vision. There was an acknowledgement that some learning outcomes related to Paediatric optometry and refractive surgery are more extensively covered in Master's level modules.

Students gain experience of diagnostic drug use and are assessed in this by testing one another, and in clinics under the supervision of the ophthalmologist. This includes gonioscopy as well as Goldman tonometry, cycloplegic retinoscopy and dilated Volk indirect posterior segment examination. Practical competencies are achieved through: B22 Spezielle Optometrische Untersuchungen ('Advanced Investigative Techniques in Optometry'), B25 Klinische Optometrie I (Clinical Optometry I)

Decision: Standard Met

Part C

A large range of modules, across years 1, 2 and 3 of the programme, support the subject areas and learning outcomes for Part C with sufficient depth. These include ocular anatomy and physiology, human biology, pharmacology and pathology, investigative techniques and clinical practice, and ocular pathology.

Practical competencies are achieved through: BO2 Grundlagen der Kontaktlinsenanpassung (slit lamp, keratometry), B22 Spezielle Optometrische Untersuchungen ('Advanced Investigative Techniques in Optometry'), B25 Klinische Optometrie I (Clinical Optometry 1) and B16 – Physiologische Optik II. However, in the section, we describe shortfalls in the current depth and breadth of clinical experience that we have made a condition for improvement.

Decision: Standard Met

Part D

There are no specific modules that cover the subject areas of professional conduct and communication learning outcomes. The team at Beuth reported that they consider these skills embedded in clinical experience and all professors responsible for a specific clinic discuss professional conduct and behaviour in their introductory lecture related to their clinics, and all students wishing to take part are obliged to sign a set of corresponding rules.

Decision: Standard not met

4. Analysis of the Clinical Portfolio

The Visitors reviewed a random sample of portfolios. They viewed the instructions the student receives, and the support they get in the process of completing their clinical portfolio. The 20 detailed case records are gathered from the clinical experience gained as part of the programme in-house, and the other 130 records come from experience in clinical practice up to two years from graduation. Students are instructed regarding the nature and type of patient profiles required to show a breadth of experience.

Profs Ralph Krüger, Holger Dietze and Sabine Will are responsible for reviewing of Portfolios and determining whether they have sufficient detail to deem each a complete and reflective record of a patient encounter.

The Visitors had the chance to view Portfolios from previous years prior to the visit, and access to the current year's portfolio during the visit. There were a number of issues noted. In general, there were gaps in the detail of eye examinations, with lack of recording of retinoscopy, and a lack of supplementary material such as retinal imaging or perimetry results to aid the comprehensive presentation of the case description. There was a lack of evidence of management of cases. The dispensing cases were often not full eye examinations. Furthermore, building in a sampling requirement to check a number of the other 130 examinations would be important. The gathering of the 20 detailed cases currently occurs in the 3rd year of the programme through University eye clinic experience. However, the Visitors were not convinced that a sufficient breadth of experience and patient encounters can be achieved for every student. This is compounded by the fact that the students undertake to see patients in pairs, and lack the experience in taking control and managing the patient encounter. While the Visitors appreciate that this ensures more patient encounters, the team recommend that students could alternate between leading and observing encounters and write up those episodes that they lead only. To achieve the desired case experiences, the Team could also consider expanding the role internships.

Decision: Standard partially met

5. Conclusions

Part A: *Standard Met*
Part B: *Standard Met*
Part C: *Standard Met*
Part D: *Standard not Met*
Portfolio: *Standard Partially Met*

The Visitors would like to thank Prof Holger Dietze and the whole Department for their accommodation and organisation of the Re-accreditation visit.

We recognise that the Team make significant efforts and contribution in order to align the BSc Optometry programme with the requirements of the European Diploma in Optometry and are grateful for the commitment to the ethos of the accreditation process. However, there are a number of areas where the graduates from the BSc Optometry programme do not exhibit a comparable standard with the European Diploma, and we therefore set out a number of conditions that would need to be met to ensure that continuing accreditation can be awarded. This report will be recommended to the ECOO European Qualifications Board who will formally ratify this.

Conditions

1. Ensure the standards for the Clinical Portfolios are maintained and achieved to ensure that they meet the level of the European Diploma in Optometry (see commentary above). The following are key components of this:
 - a. Formalise the clinical experience for students in the public facing optometry clinics. Have one student leading eye examination to gain experience of managing a patient and recording data, with other student observing. Only the cases that they have managed personally are those that they can write up as case reports.
 - b. Ensure that dispensing cases also contain details of a full eye examination. We appreciate that there may be challenges with the student undertaking the eye examination + dispense, but the details of the eye examination still need to be given for the student to reflect a full case record, and demonstrate comprehensive management of this patient.
 - c. Undertake some random sampling of 130 cases in practice that are contributing to the Portfolio of clinical experience.
 - d. Ensure patient information contained within the portfolios is anonymised.

2. The teaching of Part D integral competencies needs expansion, possibly taught in more general lectures in modules such as B22 (special optometric procedures) or module B25 (clinical optometry I).
3. Expand the use of diagnostic drugs in 3rd year clinics.
4. Expand the practical experience in ophthalmology for all students, to gain sufficient exposure to common ocular diseases.

To ensure that the conditions set out in this report are addressed in order to achieve continuing accreditation with the European Diploma in Optometry, the team are asked to update the Chairs of the Accreditation Agency on actions taken. Condition 1 should be achieved during the current academic year (2022/23), and the team will need to provide portfolios for review. The other conditions should be met for the next academic year and reported in the annual monitoring form.

Fulfilment of the other conditions will be examined in the next re-accreditation visit, but the team are welcome to report updates in the annual monitoring process.

Recommendations

1. Consider making use of internships to expand on the possibility of using cases and experiences from this Internship to contribute to the Portfolios
2. Consider how students get some hands-on experience in paediatric optometry
3. Consider expansion of practical experience of conducting eye examinations on people with low vision. The Visitors were impressed with the relationship with a charity to enable students to visit with low vision patients and gain insight into their daily living needs, but it would be valuable if these individuals with low vision could be invited to the optometry clinic to examine their eyes.
4. Expand their knowledge of binocular vision assessment to reflect current practice
5. More directed content on the visual assessment of those with learning disability would be valuable.
6. Ensure that posterior segment examination in 8 directions of gaze occurs and is recorded
7. Ensure retinoscopy is conducted and recorded as part of eye examinations
8. Encourage students to purchase a 90D loupe and retinoscope.