



The European Council of Optometry and Optics

**Accreditation of the joint Optometry course
Delivered by**

ZVA Akademie, Knechtsteden and Fachhochschule Aachen

**Against the Knowledge Base, Competencies
and Portfolio of the
ECOO European Diploma in Optometry**

**This report is in two sections: a report of the Accreditation visit
11-13 November 2021
& a follow-up report based on changes implemented**

Initial Report from Visit in November 2021

1. Background

The joint Optometry programme under review consists of two parts: Part 1 up to master craftsman's examination (Meister) and craftsman's (HWK) Optometrist at the ZVA Akademie in Knechtsteden and Part 2 for a BSc. in Optometry at the University of Applied Sciences Aachen in Jülich (*Fachhochschule* (FH) Aachen). Günther Neukirchen is the head of the ZVA Akademie and Prof. Konstantin Kotliar is responsible for the Division of Optometry at the FH Aachen.

Part 1 can be achieved as a full-time, one year or part-time, two-year course. If part-time, the course can be taken via block teaching or on certain days per week. Part 2 runs as a part-time, two-year course.

The examinations for obtaining the Meister and the HWK Optometrist are both centralised in each German state, for which the craftsman chamber (Handwerkskammer) sends external examiners to evaluate and decide on the candidates' standards for the examination.

Optometry in Germany is not separately regulated as a health care profession. It is part of the handicraft profession of dispensing and refracting opticians. The scope of practice in Optometry in Germany is at category 3, according to the World Council of Optometry (WCO) classification. Topical diagnostics are not available in Optometric practice, however optometrists are entitled to carry out comprehensive eye exams as primary eye care providers who give a tentative diagnosis, in order to decide if and how urgently a referral is necessary (or indicated).

Due to the COVID-19 global pandemic, unfortunately the opportunity to conduct an Accreditation visit was significantly delayed, but a visit was able to be organised on 11-13 November 2021. The overall Optometry programme was evaluated for accreditation. This applies only to graduates who have completed both the Meister programme and the Optometrist HWK Examination at the ZVA Akademie and the BSc Optometry programme at FH Aachen.

The Visitor Panel consisted of:

Prof. Brendan Barrett
Dr. Robert Chapell
Peter Gumpelmayer
Prof. Daniela Nosch

2. Overarching analysis of the programme

The staff at ZVA Akademie are well qualified with a variety of qualifications: MSc. from Aalen and Jena and ZVA Optometrists. One ophthalmologist is on the staff and this individual teaches anatomy and pathology. She also organises practicals, including the use of diagnostic drugs (contact tonometry, gonioscopy and dilated fundus examination).

Part 2 (BSc. Course) is led by the FH Aachen. Practical/clinical work and lectures are split between Aachen and Knechtsteden. The teaching goes beyond conventional optometry covering medico physics, evidence-based medicine and research.

30 – 40 students usually enrol in the Meister programme (Part 1; approx. 50% part-time and 50% full-time), and usually 12-15 students carry on to complete the BSc. University course (Part 2). The last two years had been difficult because of Covid-19 pandemic and student enrolment numbers have been smaller in 2020/2021. FH Aachen is committed to making a success of the programme and future numbers are encouraging.

All students enrolling with the ZVA Akademie Aachen must have completed a dispensing optician apprenticeship. The University entrance qualification represents a successful Meister qualification. A levels (Abitur) are not conditional for entry to the BSc. Optometry course; German legislation accepts the successful master craftsman's examination as a substitute for the university entrance qualification.

Julich Campus (FH Aalen) is about a 45 minute drive from Knechtsteden. It is a large modern site which houses the departments of engineering, biotechnology and health sciences. The research laboratories are well equipped.

There is a mix between face-to-face teaching, practicals and online material. There are written exams at the end of modules. Practical exams take place in some modules, in addition all students take part in the Meister and Optometrist exams with external examiners. Approximately 10% don't pass the Meister exam on the first occasion. Three attempts are possible at the Meister exam, two at the HWK optometry exam.

The clinical facilities in Knechtsteden are very well equipped. The students carry out eye exams on each other and in small groups on invited external patients under supervision.

The students are also obliged to attend ophthalmology clinics during four weeks (two weeks during Part 1 and two weeks during Part 2).

There was discussion around grand rounds to be organised at Knechtsteden to increase first-hand clinical experience. As this seems to be a difficult undertaking, as Knechtsteden is geographically remote, it was agreed that case scenarios with images and films will have an important part to play to enable students to train their clinical decision taking skills.

Currently, some students are supervised by Meisters who are not trained to carry out full optometric eye exams and therefore are unable to give them support for ophthalmoscopy procedures and interpretation of pathology. The ZVA Akademie recently implemented a 'telemedicine' service for the students, by which they can send pictures from examinations that are subsequently discussed via video call.

Generally, very little additional testing such as functional tests, slit lamp exam, tonometry and ophthalmoscopy is carried out on a regular basis in standard optometry practice. The optometry teaching at Knechtsteden Akademie / FH Aachen will pave the way for a cultural change in optometry towards a more important role in primary eye care.

German legislation does not allow the use of diagnostic drugs by optometrists. All experience with diagnostic drugs is therefore restricted to practicals supervised by an ophthalmologist at the ZVA Akademie in Knechtsteden and to the four week experience in ophthalmology clinics.

Conversations with two ophthalmologists took place, both of whom felt that the students had excellent experience and were equivalent to 2nd or 3rd year assistant doctors. They confirmed that the students also undertake examinations at their clinics and then subsequently discussed the management of patients with their supervisor. An optometrist supervisor said that the education was very good. Generally, their view was that the knowledge and skills that the students had was good. Graduates working in private practice, at an ophthalmology clinic and in teaching dispensing apprentices all said that they had been well prepared for practice as an optometrist.

3. Analysis of the self-assessment document

Part A

All module descriptions with adequate numbers of ECTS and learning contents (E-learning access) were made available to the accreditation team. Sufficient evidence was delivered for obtaining the required knowledge-based and practical / clinical competencies in Part A of the EDO.

Decision: Standard Met

Part B

All module descriptions with adequate numbers of ECTS and learning contents (E-learning access) were made available to the accreditation team. After discussion that resulted in the inclusion of more in-depth teaching in both knowledge-based and practical / clinical parts of Subject 10 (Ocular Motility and Binocular Vision), sufficient evidence was delivered for obtaining the required knowledge based and practical / clinical competencies of the EDO.

Decision: Standard Met

Part C

All module descriptions with adequate numbers of ECTS and learning contents (E-learning access) were made available to the accreditation team. The total number of ECTS for subjects 15 – 18 as well as subject 22 seems low compared to the number suggested for the EDO by ECOO. However, following the inclusion of more in-depth teaching, it was decided that sufficient evidence was delivered for obtaining the required knowledge-based and practical / clinical competencies of the EDO in these subjects. For the practical / clinical part of subject 14 (Refractive Surgery), an obligatory implementation of clinical experience for all students is necessary. For subjects 19 and 23 (Ocular and General Pharmacology), clarification that all topics are covered is required. This applies to LO6 (antibiotics), LO7 (antiviral drugs), LO10 (antiseptics, disinfectants, preservatives), LO10 (common systemic side effects of medications) in Subject 19 (General Pharmacology) and to LO 7 (antimicrobial agents), LO 10 (tear substitutes), LO 11 (ocular effects of local and systemic drugs) in Subject 23 (Ocular Pharmacology).

The level of supervision in external practice was found to be variable and therefore potentially unsatisfactory. Hence, quality assurance mechanisms need to be introduced to ensure an adequate level of supervision.

Decision: Standard Partially Met

Part D

All relevant module descriptions with adequate numbers of ECTS and learning contents (E-learning access) were made available to the accreditation team. LO3 (cultural differences) and LO4 (cross-cultural communication techniques) in Subject 25 (Communication) do not seem to be covered.

Decision: Standard Partially Met

4. Analysis of the Clinical Portfolio

Preliminary portfolios were inspected. Generally, the proposed format was adhered to. The lack of comprehensive eye examinations in daily optometric practice (see comments above and below) is reflected in the portfolios. Ophthalmoscopy appears to only be carried out for the central retina (optic nerve and macula) and hence portfolio cases described the retina only up to 3 disc diameters away from the optic nerve head. In addition, few functional tests are routinely carried out and the binocular vision cases reported mostly only included Polat test measurements at distance.

Exemption will be considered when the first Portfolios for those graduating are submitted to ECOO for assessment. It should be noted that when these are reviewed, particular attention will be paid to the requirement for full eye examinations and the inclusion of relevant supplementary examinations.

5. Conclusions

DECISION:

Part A – Fully Accredited

Part B – Fully Accredited

Part C – Partially Accredited (see conditions below)

Part D – Partially Accredited (see conditions below)

Portfolio – Not Accredited until a graduating class has submitted a satisfactory sample of portfolios.

Conditions

Part C:

Subject 14 - Refractive Surgery – implementation of clinical/practical competency
Subject 19 and 23 – knowledge base Ocular and General Pharmacology – Clarification that all topics are covered. Subjects 19 and 23 (general and ocular pharmacology) appear to only cover partially: antibiotics, antiviral drugs, antiseptics, disinfectants and preservatives, common systemic side effects of medication and ocular effects of local and systemic drugs.

The students' clinical experience is obtained through their work in practice, as it is not possible to integrate clinics into in-house training at the ZVA Akademie in Knechtsteden. Good practice requires 1) evidence for the level of experience that the students need to be exposed to and 2) that they are able to independently take decisions in clinical situations. It is therefore crucial that a cooperation with the supervisors in practice is established, in order to better standardise the level of supervision. Quality assurance mechanisms need to be introduced to ensure an adequate level of supervision.

Part D:

Implementation of coverage of LO3 and LO4 in subject 25 Part D1, cultural differences and cross-cultural communication techniques.

Portfolio

Exemption will be considered when the first Portfolios for those graduating are submitted to ECOO for assessment.

It should be noted that when these are reviewed, particular attention will be paid to the requirement for full eye examinations and the inclusion of relevant supplementary examinations. For example: in symptomatic heterophoria measurements of the phoria at distance and near are required; ophthalmoscopy results must be recorded in all directions of gaze.

This will not be an assessment of the portfolio quality of individual candidates but of how the portfolio cases are marked by the responsible lecturers at the ZVA Akademie.

Only graduates of the BSc Optometry Programme, who graduate after Parts A – D and the Portfolio have been fully accredited (i.e. who graduated before full accreditation is granted), will be eligible for the award of the European Diploma. Also, this applies only to graduates who have completed both the Meister programme and the Optometrist HWK Examination at the ZVA Akademie and the BSc Optometry programme at Aachen.

Recommendations

Based on discussions during the Visit, the following advice and suggestions as to the improvements that could be implemented, some of which may assist in meeting the conditions for full accreditation.

Refractive Surgery: The voluntary scheme of clinical experience with pre- and post-operative services is made compulsory for all students.

Supervision of Clinical Experience in Practice: The ZVA Akademie and FH Aachen put in place minimum qualification criteria for supervisors at the level of Optometrist HWK. If this is not possible for an individual student, an alternative arrangement needs to be implemented. It is suggested that the student should undertake at least 50 full eye examinations under the supervision of an optometrist meeting at least the above criteria. These cases may be included in the Portfolio and the records made available.

Hospital/Clinic Experience: During the visit it was suggested that the four week clinic placement be altered to two weeks. This experience is too valuable to be reduced and should be retained.

Tutors: It is good practice to have a system of personal tutoring to ensure that individual support is available to enhance student engagement and experience.

90D lens: It is strongly recommended that all students should purchase their own 90D lens as this would encourage their use on a regular basis.

Examination: It is recommended that an examination that specifically tests clinical decision making skills be included during the Bachelor programme.

Further Report on status in November 2022

In response to the conditions and recommendations communicated in January 2022 based on the accreditation visit on 11 – 13 November 2021, a considerable effort was undertaken by the ZVA Akademie, hence the following updated decision can be communicated:

Part C

For the practical / clinical part of subject 14 (Refractive Surgery), an obligatory clinical experience at a local eye clinic was implemented for all students. For subjects 19 and 23 (Ocular and General Pharmacology), sufficient clarification that all topics are covered has been provided.

The level of supervision in external practice was found to be variable and therefore potentially unsatisfactory. Hence, the following quality assurance mechanisms were introduced to ensure an adequate level of supervision: The ZVA Akademie has given an assurance that each student must carry out a minimum of 50 eye examinations under supervision of an Optometrist with the minimum qualification 'Optometrist HWK'. In addition, an examination that specifically tests clinical decision making skills has been included in the Bachelor programme.

Based upon the above changes to the ZVA Akademie's provision in Part C, we are satisfied that our concerns have been satisfactorily addressed.

New Decision: Standard Met

Part D

An additional, obligatory course was implemented in the syllabus that now covers LO3 (cultural differences) and LO4 (cross-cultural communication techniques) in Subject 25 (Communication). As with Part C above, we are now satisfied that our concerns in this area have been satisfactorily addressed.

New Decision: Standard Met

Conclusions

DECISION:

Part A – Fully Accredited

Part B – Fully Accredited

Part C – Fully Accredited

Part D – Fully Accredited

Portfolio – Not Accredited until a graduating class has submitted a satisfactory sample of portfolios.

Outstanding Conditions

Portfolio

Exemption will be considered when the first Portfolios for those graduating are submitted to ECOO for assessment.

It should be noted that when these are reviewed, particular attention will be paid to the requirement for full eye examinations and the inclusion of relevant supplementary examinations. For example: in symptomatic heterophoria measurements of the phoria at distance and near are required; ophthalmoscopy results must be recorded in all directions of gaze.

This will not be an assessment of the portfolio quality of individual candidates but of how the portfolio cases are assessed and graded (pass/fail) by the relevant staff at the ZVA Akademie.

Only graduates of the BSc Optometry Programme, who graduate after Parts A – D and the Portfolio have been fully accredited (i.e. who graduated before full accreditation is granted), will be eligible for the award of the European Diploma. Also, this applies only to graduates who have completed both the Meister programme and the Optometrist HWK Examination at the ZVA Akademie and the BSc Optometry programme at Aachen.

Recommendations

Based on discussions during the Visit, the following advice and suggestions as to the improvements that could be implemented, some of which may assist in meeting the conditions for full accreditation.

Hospital/Clinic Experience: During the visit it was suggested that the four week clinic placement be altered to two weeks. This experience is too valuable to be reduced and should be retained. Therefore we would not support such a change.

Tutors: It is good practice to have a system of personal tutoring to ensure that individual support is available to enhance student engagement and experience.