



The European Council of Optometry and Optics

Accreditation of the Department of Optometry

**Bachelors in Optometry programme at the University of Applied
Sciences, Oulu, Finland**

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

16-18th November 2022

1. Background

Interest in the Accreditation for the European Diploma of Optometry was initiated by the course team for the Bachelor of Health Care, Optometry at Oulu University of Applied Sciences in 2016. A visit took place in early 2018, and from this the course team were given feedback and further developed their programme. They submitted an application for accreditation in summer, 2022. Full details of the accreditation process for the European Diploma of Optometry by the Accreditation Agency are available [here](#).

There are approximately 1,500 optometrists in Finland. In 2011 legislation was introduced which permitted the use of diagnostic drugs by optometrists: mydriatics, cycloplegics and anaesthetics. The first graduates with full diagnostic rights graduated in 2015. Those qualifying before that date are required to undertake a pharmacology course, and ~70% of all optometrists have done this. Eye care is mainly delivered privately, though some optometrists work in eye departments in public hospitals. Finnish optometrists are allowed to examine children (i.e. there is no minimum age from which optometrists can examine children), and to use cycloplegics. However, they are limited in the age at which they can issue spectacle prescriptions; only to those >8 years. Optometrists need to undertake continuing education for registration (mandated by the optometry ethical committee) and gain 30 points (based on 1 hour lecture=1 point) over a five-year period.

The Finnish Association of Vision and Eyecare (NÄEry) forms a national umbrella association that gathers the vast majority of the Finnish private eye care providers, optic retailers, institutions, and organizations underneath it.

There are currently two universities providing optometric training in Finland: Oulu University of Applied Sciences and Metropolia University of Applied Sciences in Helsinki. Both departments, together with the Finnish Association of Vision and Eyecare, requested that the courses should be accredited against the European Diploma in Optometry together to promote a common standard of eyecare to the public. These developments also coincide with planned reform of healthcare funding, which has the potential to change the nature of the delivery of eye care in Finland. The Visitors recognise the importance of the two optometry programmes supplying optometrists to meet the eyecare needs of the Finnish population, and the importance of further development of scope of practice.

The University of Applied Sciences in Oulu is the 5th largest in Finland with around 9,000 students. The Optometry course started in 1987 and the three-and-a-half-year structure was adopted in 1994. The course is nationally accredited, and Mr Tuomas Juustila leads the Bachelors programme. There is international collaboration with

Salus University in the USA, and adjunct faculty from this institution help deliver BOptom and MOptom education.

The Visitor Panel consisted of:

Prof Brendan Barrett

Dr Julie-Anne Little (Chair of Panel)

Prof José Manuel Méijome

Drs. Sonja Zinken

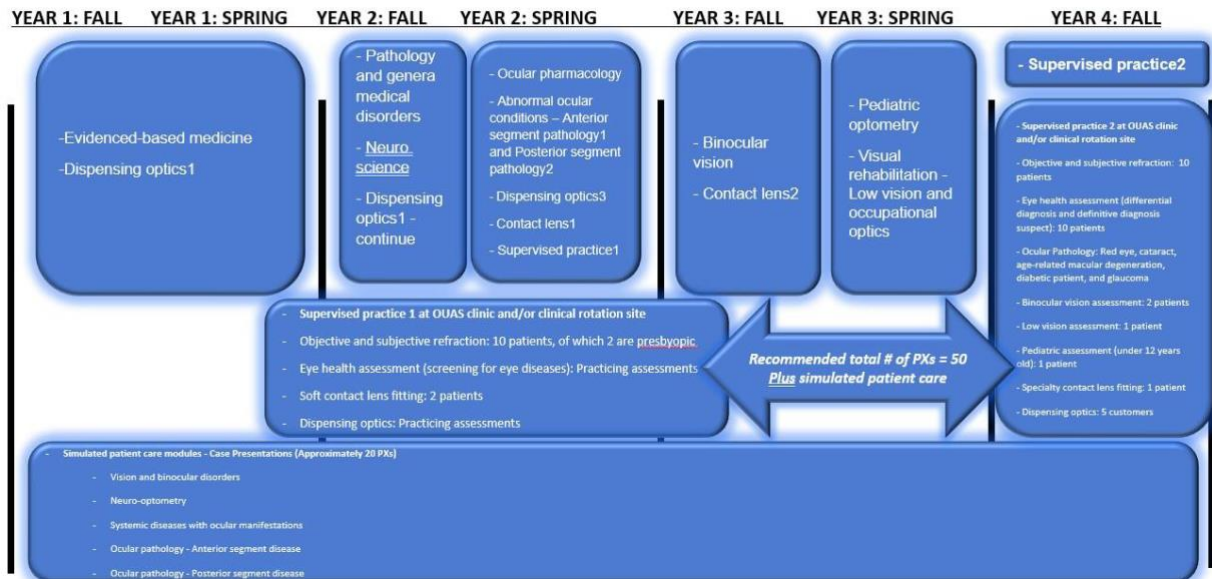
2. Overarching analysis of the programme

There are five main staff members in the Department of Optometry, teaching ~1200 hours annually, with support from 11 other staff members with ~30-72 hours of annual commitment for a range of subjects. The optometry department is managed by Dr Robert Andersson and Mr Tuomas Juustila leads the Bachelors optometry programme, and Dr Andersson the MSc Clinical Optometry programme. The optometry programme is one of four special fields in Health Care programmes within the Unit of Health and Social Care.

There is a consistent number of applicants for the BOptom programme with a matriculation certificate (Finland), a professional diploma or baccalaureate or equivalent qualification or previous degree. Candidates undertake an entrance examination, and 30 students are enrolled onto the programme once every year. Graduate numbers in 2019, 2020 and 2021 were 24, 29 and 25 respectively. Education costs in Finland are funded by the government and are set by the ministry of education and ministry of social affairs and health. The 3.5-year programme consists of 210 ECTs.

The structure of the programme mapped to the European Diploma of Optometry is shown in the following schematic supplied by the course team:

Structure of BOptom Program: Optometry Courses



Source: Dr. Robert Andersson

With regard to facilities, the department uses shared lecture rooms for didactic teaching. They have eight clinical cubicles for optometric practicals, which are equipped with slit lamps and keratometers, trial cases, digital vision charts, including some video slit lamps; some are equipped with phoropters. There was a range of low vision equipment. Students across all years use these facilities for all types of optometric clinical experience and skills building. The use of diagnostic drugs is taught for dilation and cycloplegic refraction, and for Goldmann tonometry and gonioscopy. A separate room is equipped with an OCT, fundus camera and visual field screening equipment, and this is also used for Masters (MS) teaching.

While the course team note that they are in the process of gaining a licence for opening an optometry clinic, there are still no clinical facilities for delivering eye care services. Furthermore, while students are encouraged to bring friends and family for eye examinations into the clinical cubicles, there is no structure whereby the course team organise specific patient groups (e.g., older people, people with ocular conditions, people with low vision, paediatric patients, contact lens patients) to ensure students gain direct experience of conducting comprehensive eye examinations under supervised conditions by optometric staff. Consequently, the students have limited experience in conducting comprehensive eye exams including anterior and posterior examination and management of patients. Such opportunities are rich learning experiences, enabling supervisors to assess the level of their skills and ensuring that students transfer theoretical knowledge into a real-life context, and help prepare them for work-based placements (clinical rotation sites).

Overall, while it is welcome that investment has been made in units and video slit lamps, it is disappointing to note that these facilities are relatively unchanged from the previous visit 4 years ago.

Given that the cubicles are used for pre-clinical skills development, eye examinations and contact lens fitting, this gives little opportunity for students to practise in their own time. We understand that the clinical cubicles are open to students until 8pm, but students did not report them using these frequently out of hours. Expanding the clinical opportunities for students will mean that this space becomes even more heavily used, so a further suite of clinical testing cubicles would make a significant difference.

There is a dispensing laboratory with a variety of hand and automatic edgers, hand operated focimeters and an Essilor Visioffice. The students glaze, assemble and repair spectacles and learn ophthalmic dispensing fitting techniques.

The panel observed lectures and practicals during the visit. Lecture material is supplied ahead of time via electronic elearning platform Moodle. Lectures are not recorded, though there are a number of lectures delivered via pre-recorded sessions, such as those from visiting faculty at Salus University. Lecture attendance is not compulsory, and approximately half to two-thirds of the students attended the lectures we observed. For the practical sessions, students are split into smaller groups and have set tasks and worksheets to complete.

During the visit, the Visitors met with a sample of students from 1st/2nd/3rd/4th years of the BOptom programme. There was a mixed profile of backgrounds, with some currently working part-time in optometric practice. There were largely positive contributions regarding the course teaching and the support of staff. Students were aware of the European Diploma in optometry and appeared to value it as a means to raise the standards and open professional opportunities throughout Europe.

There are good opportunities for staff-student discussions with meetings between staff and student representatives from each year. There is a tutor system to support students with both academic and personal problems.

During the visit, the panel met with the four full time members of staff (Ms Leila Kemppainen, Mr Stefan Diekhoff, Mr Tuomas Juustila and Dr Robert Andersson) and one adjunct faculty staff member (Ms Anniina Kärkkäinen).

The students undertake two external work-based placements (clinical rotations) during their BOptom: seven weeks at the end of 2nd year, and 10 weeks in the first semester of 4th year. The students organise these placement opportunities themselves. For these work-based placements, there is a checklist of experiences that students need to gain during these externships, and supervisors are required to

be optometrists with diagnostic drug rights. There is no formal record to track the type of patients seen or the quality/extent of experience which limits the ability of Oulu staff and supervisors to ensure that a comprehensive and common training framework is provided to every student. Currently, there is a range in the extent of practical experience students gain during placement, with some more limited than others. There is little evidence of any quality assurance (QA) framework for these placements, nor written feedback systems captured by students or from supervisors about their performance. Some students noted that while they met the criteria of seeing the range of ten patient types, that they experienced little more than this, and felt compelled to work as part of the practice team to conduct spectacle dispensing. The course team reported that they have just received approval to deliver a Continuing education course (~six-month duration) for working optometrists and plan that completion of this course would be an effective way to improve connection with external supervisors of their students. This could help to improve and standardise the level of clinical experience gained by Oulu students whilst on placement.

The visitors met four work-based placement supervisors/employers, with three having MSc qualifications and professional development responsibilities in their companies, and one recent graduate from the programme. They were all satisfied with the level of knowledge of the students coming into practice, though some noted that more hands-on experience of ocular disease and real patients would have been valuable in training.

During the second work-based placement, students go for a week of hospital experience. There is a national register that students access and they are free to choose a location convenient to them. Again, there was no evidence that QA occurred, and no apparent structure for students to document patient episodes seen/observed or to reflect on their experience. It was not apparent that staff tracked this experience or used this to guide future students to those hospital placements that provide good patient experience opportunities.

Students rely on work-based placements to gain experience of paediatric vision assessment. There are demonstrations of simulated low vision in the programme and exposure to the use of low vision aids and electronic devices, but again low vision practical experience is only gained through student's work-based placements or possibly hospital experience.

With regard to dispensing experience, the students clinical experience in practice in the 2nd year of the programme ensures that they have good experience of spectacle dispensing of a range of cases including progressive lenses, and for vocational purposes. While the knowledge base for eye protective lenses occurs, including case discussion, it was noted that students may not all gain direct experience of dispensing eye protection.

The structure of the programme across 3.5 years builds on knowledge of human anatomy, physiology and pathology, optics and contact lenses. They develop clinical skills in refraction and investigative techniques and later knowledge of ocular disease, binocular vision, low vision, and paediatrics. Clinical skills are assessed within modules, but it was not apparent that this was assessed in a comprehensive, holistic fashion via the ability to conduct comprehensive eye examinations.

Prior to the visit, there were some difficulties in mapping the self-assessment document with the information provided. During the visit, the Visitor panel had opportunity to talk to the course team, were given additional information requested, and had access to Moodle. Through these efforts, the Visitors were able to view in detail the content and assessment for modules and gain a good understanding of how the programme is delivered.

Areas for Improvement

- There is a need to increase the number of real patient experiences in the in-house clinic in the 2nd and subsequent years of programme. In preparation for later portfolio requirements, students should keep a record of clinical experiences, and a process to capture supervisor feedback, and students' reflection on feedback, should be established.
- There is also a need to increase exposure to real-life examples of common ocular pathology conditions, and patients with low vision, binocular vision issues, contact lenses, and paediatrics. While some of these may be encountered in case-finding while conducting eye examinations, there is also benefit to developing links with patients who have interesting conditions to give student experience of a range of conditions. This could be done by establishing links with community groups for low vision etc, in a 'grand rounds' type set-up, or eye examination episodes.
- The course team need to ensure that all students have experience of low vision assessment and eye examination on paediatric patients, as well as exposure to special populations (i.e., patients with learning and other disabilities).
- Improve QA procedures for work-based placements to ensure that students receive appropriate and a broadly equivalent level of experience. Gather rich supervisor feedback and establish stronger criteria for supervisor responsibilities during the placement. Utilise the new planned Continuing Education course to help train supervisors and provide guidance to them

about their role in developing/tracking the student experience, and to aid students to reflect on feedback.

- Students have to write cases for the mini portfolio and are given guidance on the range of types of cases that are required. There was good evidence of write-up of detailed records for 7 episodes of the twenty cases, and the students are given a template of an eye examination record. However, there is no quality standard with minimum requirements, and no plan in place for assessment of portfolios. Accordingly, there is a need to establish a plan for Portfolio assessment including; clear assessment structure to ensure portfolios meet the standard of the European Diploma in Optometry (EDO), plagiarism check, final sign off, means to check the veracity of the 130 cases. There is a need to engage early with students in preparation of their portfolios, signposting when to start, how to embed the research methods/EBP learning in their write up of cases and encouraging reflective practice.
- The quality of hospital experience students gain is variable. It would be important for students to acquire a similar level of experience across a range of conditions, e.g., paediatrics, binocular vision issues, specialist CL, AMD, glaucoma, cataract. We recognise the challenge with this, but the course team could gather information on the experiences of current students to track the suitability of different hospital placements with the aim of better directing students to those offering good experiences in subsequent years.
- Certain areas of the programme have ECTS totals significantly less than the suggested ECTS in the EDO. While the EDO totals are a guide, the *Subjects Ocular Pharmacology* and *Pathology and General Medical Disorders* (suggested ECTS totals of 6 and 12 ECTS credits, respectively), they are covered in modules at OUAS which carry only 3 and 5 ECTS. Also, for *Subjects Vision and Ageing* and *Paediatric Optometry* in the EDO are suggested as 9 and 3 ECTS respectively, but are covered in courses in the Oulu programme by approximately 7 ECTS (indicated in the programme description). Overall, we believe more curriculum development is necessary to consider the balance of ECTS and the areas indicated above could attract more weighting in your programme.
- In some subjects in the Self-Assessment document, the ECTS were distributed uniformly across subject learning outcomes mapped in the EDO, despite the complexity of learning outcomes differing. It has been clarified with the teaching coordinators that this does not actually reflect the actual loads and a more realistic distribution of time should be considered in future self-assessment documentation.

- There are also gaps in depth of content in knowledge base for Contact Lenses and Low vision. Some aspects appear to be taught at a superficial level only, e.g. multi-focal CL taught in one lecture and one practical session only, and not all topics that are covered in lectures have a complementary practical session.
- For Part D of the EDO, Communication is taught at a basic level. Improvement can be gained through the increased exposure of patients under supervision in OUAS, by adding communication to different patient groups and situations instead of assessing only at the skills level (i.e., asking general history questions, explaining a procedure). Development and feedback on Professional Conduct could also be integrated with increased number of patient encounters. These subject areas could be expanded to the external placements by given written feedback during several patient encounters.
- Visual fields assessment seems like it does not get as much prominence in the programme, and there would be a need to ensure this is more routinely used in OUAS.
- Adopt more consistent practice of evidence-based practice and citing references within learning materials to provide a good example to students how to practise this and allow them to study the teaching material in further detail.

3. Summary analysis of the self-assessment document

Part A

A number of modules, chiefly in years 1 and 2 of the BS Optometry programme, support the subject areas and learning outcomes for Part A with sufficient depth. Practical competencies are achieved through successful completion of assessments. However, the determination of evidence of experience to assure that every student achieves the clinical competencies needs to be strengthened.

Decision: Standard Partially Met

Part B

A range of modules, across years 1, 2 and 3 of the BS Optometry programme support the subject areas and learning outcomes for Part B. These include modules on clinical investigative techniques, paediatric optometry, binocular vision, visual perception, abnormal ocular conditions, contact lenses and low vision. However, the

course team should continue to scrutinise the programme to ensure sufficient depth of content levels are achieved.

Again, the determination of evidence of experience to assure that every student achieves the clinical competencies needs to be strengthened. More hands-on clinical experience under supervised conditions by the course team will be vital to achieve this, alongside improved QA procedures to develop the learning experience in the placements, and a robust assessment method in place for Portfolios of clinical experience.

Decision: Standard Partially Met

Part C

A range of modules, chiefly across years 1 and 2 of the programme, support the subject areas and learning outcomes for Part C. These include general and ocular anatomy and physiology, Microbiology and pathology and general medical disorders, general and ocular pharmacology. The course team should continue to scrutinise the programme and ECTs weightings to ensure sufficient depth of content levels are achieved.

As before, the determination of evidence of experience to assure that every student achieves the clinical competencies needs to be strengthened. More hands-on clinical experience under supervised conditions by the course team will be vital to achieve this, alongside improved QA procedures to develop the learning experience in the placements, and a robust assessment method in place for Portfolios of clinical experience.

Decision: Standard Partially Met

Part D

Learning outcomes for professional conduct and communication are delivered in year 1 to a sufficient level. However, increasing the amount of clinical experience under supervised conditions in university clinics on a variety of patients will strengthen these skills. As part of tracking and recording clinical experience, enhanced feedback mechanisms will be needed to develop a culture of feedback and reflection so that students are aware of strengths, weakness and areas for growth.

Decision: Standard Partially Met

4. Analysis of the Clinical Portfolio

The Visitors reviewed six 'mini' portfolios, consisting of twenty cases across a range of types, to form the requirements for the 20 detailed eye examinations.

The panel viewed the instructions the student receives. Students receive a detailed template to record an eye examination, and gather these cases during work-based placements at the start of year 4 of the programme. The course team had received these portfolios from six students only days before the visit, and none of the portfolios had yet assessed. There did not seem to be a plan in place as for how this would be done. It was not apparent that there had been any iterative support or feedback for students to guide them on the required structure or level of detail required to fulfil the standards of the Portfolio of clinical experience. The students had completed a detailed report of seven cases. This would need to have been completed for all 20 cases. For the remainder, only the case record on the template was submitted. There was some variation in quality/existence of student reflection. Fundus and OCT images were supplied as supplementary information in only a few instances, but no visual field plots were included.

There was no plan in place as to how evidence of the other 130 case were going to be gathered, or what QA procedures would be developed to support this. However, during the visit, it was proposed by the course team that a random sample of five case records would be requested from students who would then complete an electronic anonymised case record, which was shown to the Panel. The Panel recognise this is a work in progress.

Decision: Standard Partially Met

5. Conclusions

	Knowledge Base	Clinical/Practical competencies
Part A:	<i>Standard Met</i>	<i>Partially Met</i>
Part B:	<i>Standard Met</i>	<i>Partially Met</i>
Part C:	<i>Standard Met</i>	<i>Partially Met</i>
Part D:	<i>Standard Met</i>	<i>Partially Met</i>
Portfolio:	<i>Partially Met</i>	

The Visitors would like to thank Dr Robert Andersson, Mr Tuomas Juustila, the course team and the whole Department for their accommodation and organisation of the Accreditation visit. We recognise the dedicated efforts of a small course team, though consider that to meet the standards of the European Diploma in Optometry in

terms of clinical and practical competencies, more staff members will be needed, and this is detailed in the conditions below.

The Visitors recognise the improvements to this programme, with the addition of a Faculty member who has developed an MS programme and existing Faculty members gaining MS qualifications. This strengthens the skills and content expertise of the team. We also note the re-organisation of the content of the programme to align with the learning outcomes of the competency framework of the European Diploma in Optometry, and the development of the Portfolio of clinical experience.

The Visitors consider there is generally adequate coverage of the LO's knowledge base, although a few areas exist where more depth of content would be important. We were also pleased to report good student motivation towards their programme, good feedback from employers on the quality and commitment of students on work-based placements and many positive comments from graduates of the programme.

We conclude that the B Optometry programme at OUAS be granted **Partial Accreditation** for the European Diploma in Optometry. The period for Accreditation is up to 5 years, and continued Accreditation is contingent on submission of annual monitoring reports, notifying ECOO of any substantive changes to the programme, including facilities, staffing and resourcing of the programme. This will be recommended to the ECOO European Qualifications Board who will formally ratify this.

If the course team wish to progress towards Full Accreditation, the following are a number of **conditions** that would need to be met. The course team should also pay careful attention to the other areas for improvement noted in the narrative above.

Conditions

1. Establish optometric clinical services within the university programme to bring in people from community for students to undertake comprehensive eye examinations on. This could be achieved through licensure for optometry practice, but also through individuals attending on a volunteer basis to have eyes examined. Such individuals could be gathered through community groups and network of optometric practices and expose the students to a range of patient types.
2. This will need to be supported by increased capacity in staff to effectively supervise this clinical activity. To achieve this, appointment of further suitably qualified faculty staff will be necessary, and also part-time instructors coming from optometric practice. Secretarial, technical and administrative staff support to assist with the operation of the clinical setting will be necessary.

3. With expansion of the course team, it will be necessary to strengthen the coordination and management of the course administration and delivery processes.
4. Establish a process to support the continuing educational development of the optometry faculty team to ensure staff maintain the relevant expertise in optometry and vision science.
5. Establish a formal process to capture individual student clinical records in OUAS, and for students to gather evidence of clinical experience, and develop a culture of feedback and reflection for supervisors/students.
6. Expand clinical/practical facilities to ensure that students in earlier stages of the programme have sufficient clinical space to have practical sessions to develop their skills in addition to the clinical facilities used for comprehensive eye examinations.
7. Establish a quality assurance and feedback process for external work-based placements.
8. Establish a formal continuing education scheme for external optometrists who are providing training in external rotations for OUAS BS Optometry students'.
9. Establish a system for portfolio assessment including; clear assessment structure to ensure portfolios meet the standard of the EDO through the assessment of 20 detailed cases, and a means for check veracity of the 130 cases.
10. Continue to develop your curriculum, taking into account the upcoming healthcare reform in Finland, and the establishment of national clinical guidelines, taking advice from your advisory committee.