

Accreditation Report Update relating to the University of Applied Sciences, Metropolia, Helsinki, Finland.

April 2024

1. Introduction & Context

The University of Applied Sciences, Metropolia, Helsinki, Finland was visited by an accreditation panel in November, 2022.

The report from that panel visit is available at:

<https://ecoo.info/ecoo-accreditation-agency/work-of-accreditation-agency/>

The following are extracts from the “Conclusions” section of the report (hyperlink above):

The EDO standard for Part A is met and the standard for Parts B, C & D are also met subject to fulfilment of Conditions 1-3 [see below]. In relation to the Portfolios, our decision is deferred until we see a sample of portfolios submitted, and the detailed plans of the course team for Portfolio assessment.

Based upon our observations, below we list three conditions that would need to be met in order for Full Accreditation to be achieved. The course team should also pay careful attention to the other areas for improvement noted in the narrative above. Should these conditions be met, we would conclude that Full Accreditation is granted for a period of 5 years.

The following is the “Conditions” section of the report (hyperlink above):

Conditions:

- 1. Establish a system for portfolio assessment including clear assessment structure to ensure portfolios meet the standard of the EDO (including reflection, literature and referencing) through the assessment of 20 detailed cases, and a means for checking veracity of the 130 cases.*
- 2. Increase practical exposure to ocular pathology cases in clinical settings so that all students receive a minimum level consistent with achieving the practical competencies of the EDO.*
- 3. 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.*

In relation to the student cohorts who will qualify for the EDO, our recommendation to the EQB will be that students who are about to graduate (December, 2022) can achieve the EDO provided that

Condition 1 is met. This will require the course team to provide samples of the EDO portfolio to the Accreditation Panel and for the assessment of these portfolios to be deemed to be satisfactory. In order for the subsequent cohort (students graduating in summer, 2023) to be eligible for the EDO, we will recommend to EQB that these students can achieve the EDO provided that both Conditions 1 and 2 are met. In future accreditation visits and in annual monitoring returns, we will expect to see progress against Condition 3. Given the tight timelines outlined above, please provide a description of how you plan to satisfy Conditions 1 & 2 as soon as possible, when you have had a chance to consider your plans in relation to the areas identified.

The purpose of this document is to provide update on the progress made by UAS, Metropolia (UAS-M) against the above conditions, to indicate the interaction between the Accreditation Co-Chairs and UAS-M and to give a recommendation about the extent to which UAS-M, as a result of their efforts since the Panel visit in November, 2022, now meet the requirements to gain full accreditation for the European Diploma in Optometry.

2. Progress Against Conditions Set in November, 2022

In January, 2023 (24/01/23), UAS-M submitted the following three documents, all of which are listed at the end of this document and available to review.

-“Attachment 3”: Proposed UAS-M portfolio structure. This document also contain UAS-M proposals for assessment of portfolios submitted by their students.

-“Attachment 4”: UAS-M plans for increase the number of cases relating to paediatrics, refractive surgery, low vision and ophthalmology for cohorts who were to graduate in December 2022, in summer 2023, in December 2023 and beyond.

-“Attachment 5”: UAS-M plans for increasing the content relating to general pathology from spring, 2023.

The response from the Chair of the Panel to the above documents was sent on 6/2/23 (document title “Response to docs_sent_by_Metropolia_on_24_01_23_dated_6th_Feb_2023”).

Below are some extracts from the response document referred to above:

Overall, we are satisfied with the proposed approach you have outlined to meet the conditions. Below I have summarised our responses to your proposals:

Attachment 3: This lists your plans for portfolio content and assessment and therefore it relates to Condition 1. The criteria you list for the cases, and the criteria you will use to decide as to whether each portfolio meets the standard look appropriate. Provided you ensure that your arrangements comply with what the ECOO website says about the portfolios (please check compliance with ECOO portfolio requirements at: [ECOO's Accreditation of Optometry programmes in Europe](#)) and that we are given the opportunity to view and approve a sample of the portfolios (which we will choose at random from a list of candidates for the European Diploma in Optometry that you provide), we believe that you will satisfy this condition.

Attachment 4: This describes your tapered approach to increasing the exposure of students at Metropolia to actual cases of ocular pathology (and thus it relates to Condition 2). This looks proportionate in the way it builds up the exposure of the December '22, Summer '23, December '23 & subsequent cohorts. This approach to staging the increased exposure across the next three cohorts, while switching the balance from external to internal, seems appropriate and sensible. You also describe several additional steps that you will take to increase exposure to paediatric encounters, to increase the variety of experience gained during hospital training, to look at the method for evaluation of students during their internships and to increase the prominence of visual field measurement by your students. Again, these directly address areas we mentioned in relation to 'areas for improvement' and we welcome these proposals.

Attachment 5: This relates to Condition 3 ('continue to develop you curriculum') and specifically to the comment we made in the section "Areas for Improvement" where we stated: "Certain areas of the programme have ECTS totals significantly less than the suggested ECTS in the EDO. While the ECTS suggested by EDO are a guide only, the teaching of general pathology and systemic disease provide important foundation and look as if they could attract more weighting in your programme". In Attachment 5, you list a number of proposed changes again, these changes also look to us to be sensible and appropriate and, hopefully, part of an ongoing process of looking at the content and balance of the course curriculum.

Thank you for engaging so positively with our suggestions for change and with your proposals to fulfil the conditions we stipulated in our report. It would be very helpful if you could respond to the small number of queries above. Provided the changes you have described are implemented in full and subject to us reviewing and approving a sample of the portfolios (as indicated above), we are satisfied that that graduates of your programme will be eligible for the European Diploma in Optometry, starting with your recent (December, 2022) graduates. Please note that, as with the final visit report, this decision also needs to be ratified by the EQB.

UAS-M provided an update against the progress in October 2023 and the document titled "UAS_M_progress_against_conditions_Oct_Nov_2023" contains details of this progress and of the Panel Chair's response to this update.

A follow-up document was sent by UAS-M in March, 2024 (see document titled: "Update on progress to ECOO accreditors March 2024"). In this document, they confirmed that, with one minor exception only, they had taken all of the actions which they had proposed to fulfil the conditions arising from the November, 2022 visit, and which the Panel Chair had indicated (in early 2023) was an acceptable response to the condition set.

3. Progress in Relation to Portfolios

Two examples of UAS-M portfolios have been submitted and reviewed by the Accreditation Co-Chairs.

The first was submitted in June 2023 and comments were provided in July, 2023 (see document titled: "Comments_on_Metropolia_portfolio_July2023").

A second portfolio was submitted to the Panel Chair on November 21st, 2023. Comments on this portfolio were provided in an email sent on 16th December, 2023 (document titled: Comments_on_metropolia_portfolio_student_JV_sibmitted_Nov23_sent_Dec_2023).

As will be evident in the documents referred to above, the Co-Chairs have generally been satisfied with the quality of the portfolios we have reviewed and with the receptiveness of the relevant UAS-M personnel to our comments.

4. Overall Recommendation

The Panel Chair has worked closely with UAS-M in relation to the conditions set following the November, 2022 visit to Metropolia in Helsinki. The Accreditation Co-Chairs have provided detailed comments on the two portfolios sent to us for review.

The Panel are now of the opinion that UAS-M have met the conditions which we were following the November, 2022 visit. The recommendation is that they have now done enough to be granted full accreditation against requirements for the EDO and that this will apply to candidates from cohorts starting in December, 2022 who have submitted a portfolio which has been deemed by UAS-M to meet the EDO portfolio requirements. The recommendation for full accreditation is conditional upon the continued provision of a sample of the portfolios submitted by EDO candidates and which are deemed to be of an acceptable standard.

It is recommended that full accreditation should be granted until November, 2027, i.e. 5 years from the date when the last accreditation visit took place.

Brendan Barrett

Chair of Accreditation Panel

Co-Chair ECOO Accreditation Agency

19th April 2024

Most recent developments for these two cohorts were made as planned and are indicated separately in CAPITALS within the *attachments 4 and 5 original texts* below. Information on other progress is included as well, within the scope of these attachments.

Attachment 4 text: Plan to increase the number of cases relating to pediatry, refractive surgery, low vision and ophthalmology.

Plan for students of the SXE19S1 group who graduated in December 2022 and who complete their European Diploma in Optometry in the Open University course.

Students participated in **six clinics** during their studies. The smaller number of clinic cases compared to the following groups is replaced by written descriptions with cases from working life.

The cases produced within 12 months from graduating:

- *Children: In addition to one case in the portfolio, describe one case where the client was 12 years old or younger.*
- *Binocular disorder: In addition to two cases in the portfolio, describe one case of binocular disorder.*
- *Eye diseases: In addition to five cases in the portfolio, describe one clinically significant posterior segment case and one clinically significant anterior segment case. The cases must represent different conditions or eye diseases than the cases already in the portfolio.*
- *Low vision: In addition to one case in the portfolio, describe one case where the visual acuity has been permanently reduced to 0.4 or lower.*
- **SUMMARY: Describe 5 special cases above.**

WRITTEN DESCRIPTIONS WERE SUBMITTED BY THE STUDENTS AND WERE CHECKED BY SATU AUTIO.

Plan for SXE20K1 group students graduating in summer 2023.

The student must participate in two additional clinics compared to the previous group. The students will thus have a total of **eight clinic sessions**, where they will examine the client entirely by themselves or together with another student. All examinations are recorded in the patient record and a logbook is kept of clinic cases.

THERE WERE EIGHT CLINIC SESSIONS, WHICH WERE CONDUCTED AS PLANNED.

The cases produced within 12 months from graduating:

- *Children: In addition to one case in the portfolio, describe one case where the client was 12 years old or younger.*
- *Binocular disorder: In addition to two cases in the portfolio, describe one case of binocular disorder.*
- *Eye diseases: In addition to five cases in the portfolio, describe one clinically significant posterior segment case and one clinically significant anterior segment case. The cases must represent different conditions or eye diseases than the cases already in the portfolio.*
- *Low vision: In addition to one case in the portfolio, describe one case where the visual acuity has been permanently reduced to 0.4 or lower.*
- **SUMMARY: Describe 5 special cases above.**

WRITTEN DESCRIPTIONS ARE TO BE SUBMITTED BY THE STUDENTS AND WILL BE CHECKED BY SATU AUTIO.

Plan for SXE20S1 group students graduating at the end of 2023.

The student must participate in **ten clinics**, where they examine the client entirely by themselves or together with another student. All examinations are recorded in the patient record and a logbook is kept of clinic cases.

Students also participate in **two clinic rounds**. The third instructor directs the rounds, where groups of four students go around to see the clinic's most interesting cases (2-3 clients). The student who conducts the examination describes how the examination was conducted. Then there is a brief discussion about the case, after which the students examine the most important findings. The students on the tours take notes on the cases, which will be 4-6 in total.

THESE WERE CONDUCTED AS PLANNED.

A plan to increase special cases during studies

Refractive surgery: The department makes arrangements with Silmäasema about visits. The visit is mandatory if the working life training in the hospital does not include refractive surgery.

Visually impaired clients: In the clinic, visually impaired clients are examined by two students per examinee, so that the student will have two examinations instead of one.

THESE WERE CONDUCTED AS PLANNED.

Children's eye examinations: Encounters with children are organized in three ways. A clinic day is organized for the staff's children. This increases experience in children's eye examinations and communication. HyMy-village's theme days include also children's events, and optometry pop-up events for children, whose eyesight is screened. The university hospital (HYKS) optometrists in the children's department inform the parents about the VillageOPTICIAN, where the children's glasses can be dispensed. In this way, students also get experience meeting children. This year HyMy-village's theme days included children's events, as well as optometry pop-up events for toddlers, whose eyesight is screened and information is given about their vision. These are included in the Innovation studies. The university hospital (HYKS) optometrists in the children's department have informed the parents about the VillageOPTICIAN, and this has increased experience in children's eye examinations and communication.

In order to unify the quality of hospital training, we will negotiate with the person responsible for the training. The aim is to get students to gain experience in different departments instead of one department. In the university hospitals of Tampere and Turku, the situation is good, but in the university hospital of Helsinki, only one department has been visited during each internship. Hospital placements have been developed so, that the students placed in one department will visit for one day in another department. The aim is for all the students to meet child patients. We also plan to increase the duration of hospital placements from one week to two weeks, which allows placements in additional departments.

The evaluation method used in internships is under development. In the current evaluation method, only general skills are assessed. The skills to be evaluated will be specified and the goals and methods of the evaluation are described in more detail. Evaluation method developments are due to be tested in Autumn 2024 at the work placements and at our clinics and VillageOptician. Assessments of the work placements will be done using Workseed-platform. All Metropolia departments will start using this method after piloting it this Spring.

More visual field tests will be done at the educational institution using Octopus 600 and 900 perimeters. We have received one more large room for devices, which allows us to examine the visual fields of two clients at the same time. New facilities have resulted in more visual field examinations to be recorded in the logbooks.

Attachment 5 text: Plan of general pathology 3 credits, changes in spring 2023 (and onwards)

Students graduating in the summer of 2023 (SXE20K1)

0.5 credits, study course SX00DS15: Headache workshop: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved/redo*.

The workshop day (8h), was scheduled in February 2023 for this group, but had to be cancelled due to sudden illness of the tutor. Instead, they discussed in a written work how they could refer their patients to other professionals in the field of osteopathy and dental hygiene.

Students graduating at the end of 2023 (SXE20S1)

0.5 credits, study course SX00DS15: *Headache workshop*: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each

student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved /redo*.

0.5 credits They have in-depth lectures on *Diabetes and the eye* for 4 hours, which are included in the Low vision patient and elderly people study course SXOODS13. Attendance is mandatory and the topic will be included in the written examination. Evaluation 0-5.

THE ABOVE WORKSHOP AND LECTURES TOOK PLACE AS PLANNED.

Students graduating in the summer of 2024 and onwards (SXE21K1 -)

0.5 credits, study course SX00DS15: *Headache workshop*: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved /redo*.

2.5 credits: They have 4 hours of in-depth lectures on diabetes and its effect on the eye, which are included in the Innovation Project SX00BH18. Attendance is mandatory. After the lectures, nurses, occupational therapists and optometry students do group work for 4 hours, as well as a multi-professional poster presentation, which they present at the end of the day. In addition to this, they have in-depth lectures for 6 hours on two topics; *High cholesterol and blood pressure and the eye*, as well as *Inflammatory reactions and the eye*. A written assignment is done with evaluation *approved/rede*.

HEADACHE WORKSHOP TOOK PLACE IN FEBRUARY 2024 AND GENERAL PATHOLOGY (DIABETES SEMINAR AND LECTURES) WERE GIVEN IN APRIL 2023. EVALUATION BY PÄIVI NOKIPII.

Please let us know if there are any details you wish us to clarify. As always, we aim to supply you with all the information you need for the accreditation.

Best regards,
Pia and Satu

16/12/23

Dear Pia & Satu:

Thank you for sending along the latest portfolio (candidate JL). Overall, we are fairly satisfied with the quality of the cases submitted and with Satu's evaluation of the document. However, we have a couple of questions about, and offer the following comments on, the document, which should be valuable for you to consider in future.

-The evaluation conducted by Satu indicates that the portfolio has passed the evaluation. Are you using a simple 'pass' or 'fail' classification system or a more fine-grained grading system, e.g. bad fail, fail, bare pass, good pass etc.? Please elaborate on the possible outcomes from your evaluation of each portfolio.

-Again, in relation to the evaluation, are you using a template for grading the portfolios? If so, please could you forward this to us?

-Please would you let us know how you would deal with a situation (not applicable here) where one or more of the detailed cases wasn't deemed to be at the required standard? Would the candidate need to re-present these cases or would an overall judgement be made about the quality of the cases presented, which if high enough, would mean that no re-working of the weakest cases would be needed?

-In relation to the pathology cases, there does not seem to be evidence that any of the patients needed to be referred. Was this the case? We recognise that not all pathology cases need referral (e.g. because they are already under the care of, for example, an ophthalmologist) but the portfolio did not seem to contain any cases requiring referral. The reason for raising this is that the ECOO portfolio guidance indicates that the 5 abnormal ocular condition cases should include at least 3 referrals ([ECOO's Accreditation of Optometry programmes in Europe](#)). This is because the spirit of the five abnormal ocular conditions cases is that the candidate demonstrates their clinical management of a range of ocular conditions beyond a routine examination.

-Information about when the patient next needs to be examined does not seem to have been routinely added to the cases presented in this portfolio. Again, for those with abnormal ocular conditions, information about the clinical recommendation for next examination would be important, e.g. if you advise a person with early cataract to return sooner..

-In the section labelled "Thinking" (in the English version), there is often much material about the condition in general; as an example, there is a large volume of information on p.57 and 58 about glaucoma (case 15). While some background information about the abnormal ocular condition is valuable, what would be more useful is a more brief description of the condition together with a commentary on how this relates to this particular case i.e. the Portfolio guidance states 'how the presentation in this case differs from the text book description'.

We hope these comments are useful to you. Thank you for keeping us updated on progress.

With best wishes for the Christmas season and for the new year,
Brendan (on behalf of the Panel)

Comments on Metropolia Sample Portfolio sent in June 2023

Thank you for sending this sample portfolio from one of your students (EV).

The portfolio contains tables listing 200 cases which are described as 'clinical examinations'. There is also a table listing 39 contact lens fits. The portfolio itself contains 20 cases which included a detailed description of each case. Scans and photos and other supplementary visual information were included as appropriate.

Overall the portfolio is of good quality and is an impressive piece of work that describes and it contains levels of detail and discussion which are consistent with meeting the standard of the portfolio element of the European Diploma in Optometry. The documentation sent to us also contains an evaluation of the portfolio by a member of the course team at Metropolia (SA). This evaluation is comprehensive and detailed and is at a level that we consider to be appropriate for the portfolios submitted by your students.

Here are some specific comments which we would like you to consider as you continue to develop your approach to preparing your students for submitting their EDO portfolio and for their evaluation when submitted (note: the points are in no particular order of importance)

- It would be nice to see more connection with fundus photography and/or OCT in the instances they were used – in other words, including more of a description of what the scans/photos were showing and how this relates to the case
- There did not appear to be any references to the relevant, published literature, e.g. on glaucoma or dry eye. This is unfortunate as we want to encourage EDO-holders to embed evidence-based practice in their delivery of optometric care.
- Referral was mentioned in a few cases, but no referral letters were included.
- There appears to only one instance of visual fields being recorded. Again, related to the above point, there did not appear to be description that of the interpretation of the field plots, nor any with the OCT images.
- While there is discussion, there is limited reflection by the author of the portfolio on their own performance. For example, having written up the case report, were there tests that might have been included that would have helped in some respect? Or perhaps some of the tests that were conducted which did not turn out to be useful. These are just some examples. It doesn't have to be extensive and it may not be appropriate in all cases, but some reflection on one's own performance in examining and managing the patient is to be encouraged.
- A final two minor points: (i) the near add and near VA were not very easy to find in the records; (ii) where there is reduced VA, it did not appear that the pinhole disc was used – did we miss this?

Please get in touch if any of the above is unclear.

With best wishes,

Brendan Barrett

Julie-Anne Little

Co-Chairs of the EQB Accreditation Agency

14/7/23

Email sent 6/2/23: response to documents sent 24/01/23

Dear Pia & Satu:

Many thanks for your email to which you attached the visit report and in which you made some corrections and answered the various questions we had posed. The visit report can now be considered to be in its 'final' form. I attach a copy for your records. The report will now go for ratification to the next meeting of the European Qualifications Board (EQB) which will take place in Poland in May, 2023.

Thank you also for the other attachments. We note that attachments 3, 4 & 5 relate directly to 'areas for improvement' we identified in the report and, in particular to the 3 Conditions we set in order to achieve full accreditation.

Overall, we are satisfied with the proposed approach you have outlined to meet the conditions. Below I have summarised our responses to your proposals:

Attachment 3: This lists your plans for portfolio content and assessment and therefore it relates to Condition 1. The criteria you list for the cases, and the criteria you will use to decide as to whether each portfolio meets the standard look appropriate. Provided you ensure that your arrangements comply with what the ECOO website says about the portfolios (please check compliance with ECOO portfolio requirements at: [ECOO's Accreditation of Optometry programmes in Europe](#)) and that we are given the opportunity to view and approve a sample of the portfolios (which we will choose at random from a list of candidates for the European Diploma in Optometry that you provide), we believe that you will satisfy this condition. One point we would make in response to your statement "*The student must have 150 cases listed, 20 of which are contact lens fittings*" is that the requirement for 20 contact lens fittings is not an ECOO requirement, however, of course you are free to stipulate it. We note from your portfolio assessment rubric that there is a need for an assessment of posterior eye (and fundus photography alone isn't sufficient) in the case of all portfolio cases and we welcome this.

Attachment 4: This describes your tapered approach to increasing the exposure of students at Metropolia to actual cases of ocular pathology (and thus it relates to Condition 2). This looks proportionate in the way it builds up the exposure of the December '22, Summer '23, December '23 & subsequent cohorts. The December '22 cohort will need to increase their exposure to pathology cases (+ document this) within 12 months of graduation. It was not clear if the '5 special cases' would be part of the portfolio or separate? Please note that they could be cases in the portfolio (no need for extra) but it is not clear about whether or not these descriptions are separate from the portfolio cases. For the summer '23 graduates, there will be two extra clinics within Metropolia (i.e. 8 instead of 6) as well as the extra, 5 special cases required by the December, '22 cohort. For the December '23 graduates, there will be four extra internal clinics (10 instead of the current 6) but no need to describe the 5 extra, special cases. This approach to staging the increased exposure across the next three cohorts, while switching the balance from external to internal, seems appropriate and sensible. You also describe several additional steps that you will take to increase exposure to paediatric encounters, to increase the variety of experience gained during hospital training, to look at the method for evaluation of students during their internships and to increase the prominence of visual field measurement by your students. Again, these directly address areas we mentioned in relation to 'areas for improvement' and we welcome these proposals.

Attachment 5: This relates to Condition 3 ('continue to develop your curriculum') and specifically to the comment we made in the section "Areas for Improvement" where we stated: "*Certain areas of*

the programme have ECTS totals significantly less than the suggested ECTS in the EDO. While the ECTS suggested by EDO are a guide only, the teaching of general pathology and systemic disease provide important foundation and look as if they could attract more weighting in your programme". In Attachment 5, you list a number of proposed changes (new workshops on Headache (for the summer 2023 graduates), along with new lectures on Diabetes for the December 2023 graduates), all of which will be accompanied by extra lecture material on high cholesterol, high blood pressure and inflammatory reactions and the eye for the Summer 2024 graduates. There will be an extra 0.5 ECTS, 1 ECTS and 3 ECTS for the graduates across these three timepoints. It was not clear where/whether you are losing material to keep the ECTS for the full programme at 210. Please could you explain? Again, these changes also look to us to be sensible and appropriate and, hopefully, part of an ongoing process of looking at the content and balance of the course curriculum.

Thank you for engaging so positively with our suggestions for change and with your proposals to fulfil the conditions we stipulated in our report. It would be very helpful if you could respond to the small number of queries above. Provided the changes you have described are implemented in full and subject to us reviewing and approving a sample of the portfolios (as indicated above), we are satisfied that that graduates of your programme will be eligible for the European Diploma in Optometry, starting with your recent (December, 2022) graduates. Please note that, as with the final visit report, this decision also needs to be ratified by the EQB.

Please get in touch if anything is not clear.

With best wishes,

Brendan, Julie-Anne, Sonja & Jose

Portfolio assessment structure

The portfolio includes passports (Logbook) and 20 more closely analyzed cases. The student must have 150 cases listed, 20 of which are contact lens fittings. Of these, he analyzes in more detail 20 cases where the goals for the student are:

- understands the customer's problems
- knows how to choose the right tests for each case
- can present the results of the examination
- can justify the end result
- can present a logical plan
- can present a prognosis of the customer's future situation

The student uses the following headings in the analyses:

- Medical history
- Differential diagnosis and plan
- Preliminary tests/assessments
- Clinical investigations
- Contact lens fitting, after care
- Reason for management (e.g. myopia), "tentative diagnosis" (e.g. glaucoma suspect) and management plans
- Discussion with reflection

In the differential diagnosis and reflection sections of the analysis, the student demonstrates his general knowledge of the subject in question by referring to literature and research. There must be at least 5 relevant references per case.

The cases have been selected as follows:

- all examinations include a comprehensive eye examination: Anamnesis - preliminary tests - eye examination and evaluation of binocular vision - evaluation of the anterior and posterior eye by examination, a picture/photo alone is not adequate.
- diagnostic drugs were used in all of them, if necessary and possible
- 5 contact lens fittings
 - 1 RGP
 - 4 other/soft lens fittings
 - at least 2 includes an after care
- 5 comprehensive eye examinations
 - 1 self-selected, self-titled
 - 2 binocular vision disorders: tropia/phoria, prisms, orthoptic exercises, accommodation disorders
 - 1 child customer ≤ 12 years old
 - 1 visually impaired customer, fitting of low vision appliances, guidance and counseling
- 5 comprehensive optometric eye examinations
 - clinically significant findings, three referred to an ophthalmologist
 - minimum 1 OCT and 1 visual field measurement (static perimetry with autoperimeter)
 - diabetic/diabetic retinopathy
 - glaucoma
 - AMD
 - cataract
 - red eye (e.g. dry eyes)
- 5 comprehensive optometric eye examinations, including spectacle prescription
 - includes dispensing (lens and frame selection, measurements) etc., where special expertise may have been used

- for example: special occupational spectacles or protective glasses, spectacles for children, high powered lenses, spectacles for hobbies or another case where special expertise has been used in the prescription of glasses
- factors that influenced the choice of frame (what kind of frame was chosen and why)
- lens information with coatings and glazing (which lens was chosen and why)
- other information and client instructions, e.g. care or user instructions
- An approved case is one that is recorded in the patient records with sufficient accuracy. Patient record and case analysis data must be consistent. The student must be prepared to show the cases marked in the passport (logbook) indicated by the instructor to verify that the examination was done and to ensure the quality of the recording. This is done as follows: 50 examinations have been confirmed with the instructor's signature during the studies. It represents 33% of the total number of required examinations. The rest of the examinations (100) are confirmed by a person approved by the educational institution. This person is the store manager, owner or similar person in charge, confirming the conducted examinations when requested. The responsible person checks the existence of randomly selected customers (10 pcs) and the requested examination information without revealing any personal information beyond the patient age.
- The student must have written consent from all the patients whose medical records are the basis of the 20 cases in the portfolio. The patient's name or contact information must not be visible in the cases.
- The responsible person gives feedback on the cases in the portfolio according to assessment structure (table below). Cases are returned on the following schedule:
 - 2 cases in the 6th semester
 - 18 cases in four sets according to a separate schedule in the 7th semester.

Logbook

150 case list of comprehensive examinations, which also includes analyzed cases (20). There are 20 contact lens cases, which are listed in a separate table. The table must show the following: when and where the examinations were performed, age of the subject, use of diagnostic drugs, referral to a doctor/ophthalmologist, eye disease or suspicion thereof, additional examinations and tests, possible binocularity disorder, choice of spectacle frames and individual lens measurements for them. The breadth of each case analysis is ensured by specified minimum requirements:

Children \leq 12 years, of which 1 under \leq 8 years:	3
Binocular disorder:	5
Cataract:	2
Glaucoma:	2
Diabetic retinopathy, diabetes:	2
AMD:	2
Dry eye:	1
Pathology of the anterior eye other than dry eye or cataract:	1
Low vision: vision \leq 0.4 in the better eye permanently:	2

Spectacle selection and individual lens measurement cases must be listed: 50

Evaluation criteria for portfolio analyses

TOPIC	APPROVED	REJECTED
Structure	Portfolio is made according to the given instructions; number of cases, categories and headings.	One or more cases are missing from the portfolio and/or the given titles have not been used.
Writing style	The case record is written clearly in Finnish using complete sentences.	The case record is written in poor Finnish or in a confused manner.
Versatility of the cases	The cases are different from each other and demonstrate extensive and versatile professional expertise.	The cases are similar to each other. Special attention is paid to cases of contact lenses and spectacles, which have a higher risk of recurrence.
Anamnesis	The anamnesis is comprehensive, taking into account the chief complaint and patient's other reasons for the examination, age, symptoms, current vision correction solutions, health and possible family history.	Without a good reason, the anamnesis does not include the chief complaint and patient's other reasons for the examination, age, symptoms, current vision correction solutions, health survey and/or possible family history.
Differential diagnosis and examination plan	There are at least two differential diagnoses, one of which concerns refractive error and its possible changes. Differential diagnoses must be logical considering the anamnesis. The examination plan is based on differential diagnoses and national and/or international evidence-based examination guidelines.	Differential diagnoses are missing or not naturally related to the case, or the conclusion about the refraction change is not logical. The examination plan is illogical and/or does not consider the differential diagnoses and/or evidence-based examination guidelines.
Case records	The case records are recorded precisely using professional terms and abbreviations. The equipment and methods used in the examination are recorded.	The case records are recorded imprecisely or not following the professional terms and abbreviations. Information about the equipment and/or examination methods is missing.
Preliminary investigations	The case includes a sufficient number of preliminary investigations to start with: Evaluation of the pupils and their reactions, ocular motility test, cover test and convergence near point CNP test.	The case does not include preliminary investigations at all or such preliminary investigations that are significant for the case.
Refraction and near add	The case includes an objective and subjective refraction and, if necessary, a cycloplegic refraction, and a near add, if necessary. Visual acuities are recorded monocularly and binocularly	The refraction and/or a necessary cycloplegic refraction and/or near addition have not been determined and/or the visual acuities have not been recorded.
Ocular motility and accommodation	Ocular motility has been assessed at least with symptom description and preliminary examinations. If there are grounds for a more detailed	Ocular motility and accommodation have not been evaluated at all, or its examination has not been reliable without a clear reason.

	examination, ocular phorias/tropias and/or an accommodation disorder have been examined sufficiently to clarify the diagnosis.	
Evaluation of the anterior and posterior ocular structures	The anterior eye has been examined using a biomicroscope and posterior eye has been examined at least with a direct ophthalmoscope. The image of the fundus is not a sufficient means of evaluation. Pupil dilation must be done if it is necessary and it is possible to do it.	The anterior parts of the eye have not been examined using a biomicroscope and/or the posterior parts have not been examined by ophthalmoscopy. Pupils are not dilated without a good reason.
Additional investigations	There must be a sufficient number of additional investigations per case. Additional studies must be included in the portfolio as a minimum: <ul style="list-style-type: none"> • intraocular pressure measurements for >40-year-olds • 1 topography • 1 automatic field of view The results have been analyzed correctly and extensively and compared to normal values.	Additional examinations are incomplete in terms of diagnosis and/or the minimum number is not met and/or their analyzes are not correct or extensive enough.
Contact lens fitting	If the contact lens fitting has been done, the exact information and parameters of the contact lenses have been recorded and the fit of the contact lenses has been assessed using generally accepted assessment methods and guidelines. The back vertex power BVP is corrected appropriately, if needed. After care has been done in two cases.	If contact lens fitting has been done, the contact lens information is incomplete and/or the fit of the contact lenses has not been assessed using generally accepted assessment methods and guidelines. and/or the BVP is not taken into account in the intensity and/or the after care is missing in the required two cases.
Diagnoses and management plans	Diagnoses are logical based on examination results and contain ICD10 codes. Each diagnosis must have its own patient centered, safe and satisfactory management plan.	No diagnoses have been presented and/or their ICD10 codes are missing. The management plan does not take into account for the patient's perspective or it does not bring satisfactory help for the problem.
Referrals	A minimum of three " <i>Optometrist's evaluation of eye findings</i> " - forms or similar referrals have been included in the cases and sufficient information has been given for each case.	There are not enough referrals and/or their content is not sufficient for the case.
Reflection	Reflection includes, at a minimum, conclusions about the logic of refraction changes, comments on the correctness of differential diagnoses with justifications, analysis of the normality of examination results,	The reflection is missing or its minimum points are not included and/or the conclusions and justifications do not show versatile control of the matter.

	<p>general outlines of diagnoses and comparison to the case in question, prognosis and follow-up treatment plan, reflection on the progression of examination and the choice of methods, communication and learning. Reflection and reasoning are logical and versatile.</p>	
Sources	<p>The normal values of the examination results, a general description of the diagnosis and management, as well as the justifications should generally be referenced. At a minimum, the reflection must include five reliable references. They are written according to the instructions and the list of references is included at the end of the case.</p>	<p>There are not enough references and/or they are unreliable, written incorrectly or are missing from the reference list.</p>
Ethics and plagiarism	<p>The examinations have been done by the student, the cases have been written by the student and they or parts of them have not been copied from other people's work.</p>	<p>The examinations have not been done by the student, and/or the cases were completely or partially written by another person and/or the text was copied from other people's work.</p>

Plan to increase the number of cases relating to pediatry, refractive surgery, low vision and ophthalmology.

Plan for students of the SXE19S1 group who graduated in December 2022 and who complete their European Diploma in Optometry in the Open University course.

Students participated in six clinics during their studies. The smaller number of clinic cases compared to the following groups is replaced by written descriptions with cases from working life.

The cases produced within 12 months from graduating:

- Children: In addition to one case in the portfolio, describe one case where the client was 12 years old or younger.
- Binocular disorder: In addition to two cases in the portfolio, describe one case of binocular disorder.
- Eye diseases: In addition to five cases in the portfolio, describe one clinically significant posterior segment case and one clinically significant anterior segment case. The cases must represent different conditions or eye diseases than the cases already in the portfolio.
- Low vision: In addition to one case in the portfolio, describe one case where the visual acuity has been permanently reduced to 0.4 or lower.
- SUMMARY: Describe 5 special cases above.

Plan for SXE20K1 group students graduating in summer 2023.

The student must participate in two additional clinics compared to the previous group. The students will thus have a total of eight clinic sessions, where they will examine the client entirely by themselves or together with another student. All examinations are recorded in the patient record and a logbook is kept of clinic cases.

The cases produced within 12 months from graduating:

- Children: In addition to one case in the portfolio, describe one case where the client was 12 years old or younger.
- Binocular disorder: In addition to two cases in the portfolio, describe one case of binocular disorder.
- Eye diseases: In addition to five cases in the portfolio, describe one clinically significant posterior segment case and one clinically significant anterior segment case. The cases must represent different conditions or eye diseases than the cases already in the portfolio.
- Low vision: In addition to one case in the portfolio, describe one case where the visual acuity has been permanently reduced to 0.4 or lower.
- SUMMARY: Describe 5 special cases above.

Plan for SXE20S1 group students graduating at the end of 2023.

The student must participate in ten clinics, where they examine the client entirely by themselves or together with another student. All examinations are recorded in the patient record and a logbook is kept of clinic cases.

Students also participate in two clinic rounds. The third instructor directs the rounds, where groups of four students go around to see the clinic's most interesting cases (3-4 clients). The student who conducts the examination describes how the examination was conducted. Then there is a brief discussion about the case, after which the students examine the most important findings. The students on the tours take notes on the cases, which will be 6-8 in total.

A plan to increase special cases during studies

Refractive surgery: The department makes arrangements with Silmäasema about visits. The visit is mandatory if the working life training in the hospital does not include refractive surgery.

Visually impaired clients: In the clinic, visually impaired clients are examined by two students per examinee, so that the student will have two examinations instead of one.

Children's eye examinations: Encounters with children are organized in three ways. A clinic day is organized for the staff's children. This increases experience in children's eye examinations and communication. HyMy-kylä's theme days include also children's events, and optometry pop-up events for children, whose eyesight is screened. The university hospital (HYKS) optometrists in the children's department inform the parents about the KyläOPTIKKO, where the children's glasses can be dispensed. In this way, students also get experience meeting children.

In order to unify the quality of hospital training, we will negotiate with the person responsible for the training. The aim is to get students to gain experience in different departments instead of one department. In the university hospitals of Tampere and Turku, the situation is good, but in the university hospital of Helsinki, only one department has been visited during each internship.

The evaluation method used in internships is under development. In the current evaluation method, only general skills are assessed. The skills to be evaluated will be specified and the goals and methods of the evaluation are described in more detail.

More visual field tests will be done at the educational institution using Octopus 600 and 900 perimeters. We have received one more large room for devices, which allows us to examine the visual fields of two clients at the same time.

Plan of general pathology 3 credits, changes in spring 2023

Students graduating in the summer of 2023 (SXE20K1)

0.5 credits, study course SX00DS15: *Headache workshop*: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved/redo*.

Students graduating at the end of 2023 (SXE20S1)

0.5 credits, study course SX00DS15: *Headache workshop*: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved/redo*.

0.5 credits They have in-depth lectures on *Diabetes and the eye* for 4 hours, which are included in the Low vision patient and elderly people study course SXOODS13. Attendance is mandatory and the topic will be included in the written examination. Evaluation 0-5.

Students graduating in the summer of 2024 and onwards (SXE21K1 -)

0.5 credits, study course SX00DS15: *Headache workshop*: with osteopaths and dental hygienists. Students read three articles and make a management plan for a client who suffers from headaches. On the workshop day (8h), they discuss with osteopathy and dental hygienist students in small groups what they will do in their assessment. Each student assesses another student and participates as a subject or observer in the assessment of another professional group. The management plan and the results of the assessment are returned to the teacher and the evaluation is *approved/redo*.

2.5 credits: They have 4 hours of in-depth lectures on diabetes and its effect on the eye, which are included in the Innovation Project SX00BH18. Attendance is mandatory. After the lectures, nurses, occupational therapists and optometry students do group work for 4 hours, as well as a multi-professional poster presentation, which they present at the end of the day. In addition to this, they have in-depth lectures for 6 hours on two topics; *High cholesterol and blood pressure and the eye*, as well as *Inflammatory reactions and the eye*. A written assignment is done with evaluation *approved/redo*.

The above changes are possible within the present curriculum. More extensive changes for the curriculum are possible in 2024 at the earliest for the students entering August 2024. We are discussing with the teachers of Oulu University of Applied Sciences about the possible unification of curricula so that joint studies would be possible in the future.