



The European Council of Optometry and Optics

Accreditation of the Department of Optometry

**Bachelor of Optometry programme at Bar-Ilan University,
Tel Aviv, Israel**

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

17-19th April, 2023

1. Background

The School of Optometry and Vision Science at Bar-Ilan University is headed by Professor Uri Polat. Tzofia Simkovich leads the accreditation process for the team at Bar-Ilan, and was a member of the Erasmus+ OCULUS project. The OCULUS (Optometry CURriculum for Lifelong learning through ErasmUS) project sought to address the issue of a shortage of well-trained optometrists in India and Israel through establishing a consortium of educators from optometry schools in Europe. The consortium came together to review and reform existing curricula of optometric education. The competency framework of the European Diploma of Optometry (EDO) was used as the benchmark for the OCULUS project, and colleagues at Bar-Ilan expressed a desire to continue towards full accreditation for the EDO after the OCULUS project ended. As part of the OCULUS project, a 'baseline' visit took place in 2016, and findings from this were used to further develop the programme curriculum. Full details of the accreditation process for the EDO by the Accreditation Agency are available at: [ECOO Accreditation Agency | ECOO](#)

There are approximately 2,500 registered optometrists in Israel, approximately half of whom practice part-time. There are 5200 ophthalmologists for a country population of 9.5 million, a large percentage of whom are refractive surgeons and retina specialists. There are 60 paediatric ophthalmologists in Israel and another 50 who are willing to examine children.

In Israel, the law recognising optometry dates back to 1991. In 1995, two programmes for optometry were established in Hadassah Academic College and Bar-Ilan University: there is a third program Zfat Academic College which has just started and took a small intake of students in the 2022/23 academic year. Currently, these are the only programmes providing optometric training in Israel.

The B.Sc. degree in Optometry programme at Bar-Ilan University is not a licence to practice. The programme is regulated by the Ministry of Education which is responsible for approval of the course. Graduates of the Bar Ilan programme have to undertake a written and practical examination which is run by the Ministry of Health but is administered by the Israeli College of Optometry through a panel of optometrists and ophthalmologists. The written examination typically takes place in Autumn, approximately three months after graduation, and if passed, candidates then proceed to undertake the practical examination a further 3-5 months later. It is estimated that Bar-Ilan graduates have a pass rate of 75%. These can be taken at any point after graduating with a B.Sc. Optometry. Continuing education/professional development is not mandatory to maintain a licence to practise. The Israeli Council for Higher Education accredits the Faculty which provides the Optometry education programme approximately every 10 years.

Optometry qualifications of graduates from Jordan and elsewhere who wish to practise in Israel are not recognised by the Ministry of Education but these individuals are allowed to take the licensing examination by the Ministry of Health.

The Israel Law of Optometry states the following regarding use of diagnostic pharmaceuticals: "An optometrist may not treat a patient with medicines or pharmaceutical agents and may not possess such agents unless guidelines are prepared by a Ministry of Health Committee." Since 1991, a committee has not been appointed to prepare guidelines for optometric use of diagnostic pharmaceuticals. Optometrists are only allowed the use of diagnostic pharmaceuticals under the direct supervision of an ophthalmologist.

Regarding children and elderly patients, the 1991 law of optometry reads "An Optometrist may not treat a child or elderly person, unless it is under the supervision of an ophthalmologist. The Minister of Health will

issue rules based on a professional staff of doctors and optometrists appointed by the Minister to determine the definition of “child” and “elderly”.

Bar-Ilan University was established in 1955 and contains 9 faculties. The School of Optometry and Vision Science is part of the Faculty of Life Sciences at Bar Ilan, and there are around 1,000 students in the Faculty. Prior to 1995, optometry in Israel was taught at the "College of Optometry in Israel" in Tel Aviv as a certificate program recognized by the Ministry of Health for licensing employment in optometry. Following the law of occupation in 1991, which requires a university degree to license employment in optometry, Bar-Ilan University began to undertake training in optometry, starting in 1995. In 1999–2000, the Optometry program, a four-year course awarding an optometry BSc degree, was formally established at Bar-Ilan University. The academic year begins in October and students graduate in June. The School of Optometry and Vision Science confers bachelors and masters degrees. There are around 30 graduate students in the M.Sc. programme. Ph.D. students conduct research in vision science and they are part of the Life Sciences Ph.D. program.

Entry requirements for the BSc. Optometry course at Bar-Ilan are as shown below. Physics and biology are not required subjects in themselves, as they are taught in the first year. Psychometric tests and used for all non-Haredi applicants. Interviews are only employed for Haredi applicants.

Admission requirements for the program- first degree			
Psychometric examination	Mean matriculation exam	Math multilication*	Yael exam **
550	100	320	105

Admission requirements for Haredi education graduates- first degree			
Mean matriculation exam ***	Meimad exam	Amir/im exam	Admission interview
85	500	Grading score in English 105	Interviews are required for admission

* The number of matriculation units in mathematics is double the final grade

** For candidates whose matriculation examinations were conducted in a language other than Hebrew (an exam testing proficiency in Hebrew)

The annual undergraduate intake for the B.Sc. Optometry programme is approximately 30. The age profile of the undergraduate students varies from 18-19 years (Ultra-Orthodox and Arab) to 22-25 years for Israelis who have completed military service before joining the programme. Overall, 80-90% of students are female. The cost of the course to students is ~10K Shekels per year and the rest of the tuition costs are supplemented from the Government.

The Visitor Panel consisted of:

Prof Brendan Barrett (Chair of Panel)

Ms Rita Dassouli (Student representative)

Prof Julie-Anne Little

Prof Daniela Nosch

2. Overarching analysis of the programme

Prior to the visit, there were some difficulties in mapping the self-assessment document with the EDO learning outcomes. Additional communication with the course team ensured access to Moodle VLE ahead of the visit. During the visit, the Visitor panel had opportunity to talk to some members of the course team and were supplied with much of the additional information requested. Through these efforts, the panel were able to view in detail the content and assessment for modules and to gain a good understanding of how the programme is delivered.

There are 9 full-time, senior faculty in the School of Optometry and Vision Science, of whom 6 have an optometric qualification. There is one 1.0 FTE senior faculty who is an MD ophthalmologist. They are supported by 16 adjunct faculty staff who have positions with >0.5 FTE, many of whom have qualification beyond B.Sc. Many of the adjunct faculty have positions in ophthalmology/optometry clinics as other employment. In addition, there are 11 staff from other BIU schools (7 from within the Faculty and a further 4 from other Faculties within BIU) who contribute teaching to the B.Sc. Optometry program. Three ophthalmologists contribute to the teaching on the programme, one of whom is full-time while the others are employed on fractional appointments. The Head of Department is Prof Uri Polat, and Dr Roxane Lahmi is the Administrative Director for the School. The Head of School and several of the senior staff in the School have PhDs and are research active. A number of the recently appointed staff have successfully completed PhDs within the School of Optometry and Vision Science.

Entry to the course is competitive and the course is at full capacity. Although the typical number of students enrolled on the programme is around 30 each year, the number enrolled over the past 5 years has varied from 27 to 54. The total number of students in the program (across all 4 years) typically falls between 130 and 150. Twenty-seven students were enrolled on 2022/23. In common with other schools of optometry, the COVID-19 pandemic affected the programme in terms of delivery of practical experience and in relation to retention rates. During the pandemic, it was necessary to switch to online delivery. Now, however, all content has moved back to face-to-face delivery.

		2018/19	2019/20	2020/21	2021/22	2022/23
B.Sc	Applicants	89	140	182	119	116
	Admitted	61	108	106	66	55
	Admitted on probation					
	Enrolled	30	54	41	33	27
	Total number of students in the program (all years)	135	154	155	147	132
	Graduated	28				
	Delayed			1st year: 17%	1st year: 10%	
				2nd year: 11%		

Recent graduation rates at the Bar-Ilan School of Optometry and Vision Science programme are as follows:

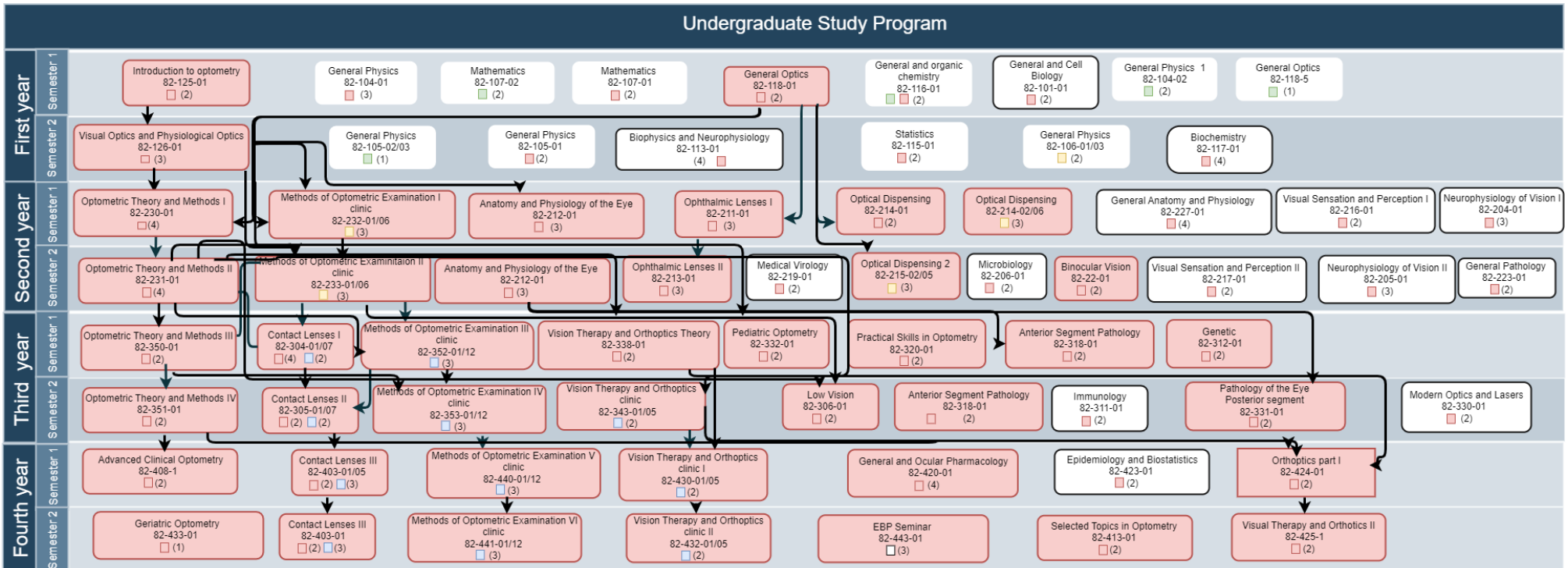
<u>% Finished</u>	<u>Started</u>	<u>Academic Year of graduation</u>
(77%) 28	36	2021-22
(88%) 32	36	2020-21
(65%) 24	37	2019-2020

With regard to facilities, the department uses shared lecture rooms for didactic teaching. In the Eye Clinic they have 14 spacious cubicles, 7 of which are used for routine eye examinations, and the other 7 are used for contact lens or low vision appointments. These are fairly well equipped with slit lamps and keratometers, phoropters, digital vision charts. There are two video-slit lamps and two autorefractors, a non-contact tonometer, an OCT, two retinal cameras, Humphrey visual field perimeter, a corneal topographer and a range of other clinical equipment. In addition to these cubicles in the eye clinic, there is 1 additional testing cubicle for further investigative techniques. Members of the public are examined in this facility which has been added since the visit to Bar-Ilan by the Oculus review team in 2017.

In a different location on the campus, there are a further 8 cubicles which were for a time the only clinical facilities available. They are now used to teach clinical techniques and they are open for the students to practice on one another and where students can bring their friends and family members to use as practice patients. Students in years 2-4 of the course can use these facilities for all types of optometric clinical experience and skills building. The theory of diagnostic drugs is taught in the general and ocular pharmacology module. At the present time, however, there is no facility for their practical use for dilation or for cycloplegic refraction in the clinics. Similarly students do not get practical experience of performing

Goldmann tonometry. For a time, the use of diagnostic drugs did take place in the Eye Clinic but the course team took the decision to cease these practices because of a negative political reaction from the ophthalmological community. Low Vision clinics are undertaken in the main (new) clinic which is very busy and which is also well equipped. Visual Therapy takes place in a large, dedicated facility which is also well equipped. There is a Dispensing Laboratory, with two automatic lens edgers, 1 manual lens edger, 12 manual focimeters and 2 automatic focimeters. Students gain practical experience of glazing, assembly and repair of spectacles and they also learn the basics of ophthalmic dispensing fitting within this facility. The Eye Clinic has a dedicated dispensing area with a comprehensive frame selection where spectacles can be chosen and fitted for patients requiring spectacles following their eye examination.

The structure of the programme is shown below in the schematic shown on the next page. This schematic was supplied by the course team.



Legend

- Exercise
- Lecture
- Lab
- Clinic
- Seminar
- Inner courses
- Parenthesis: weekly hours

The graphic above shows the courses that are taught and assessed across the four years of the programme. The colour of the square indicates the type of teaching session (lab, lecture etc.) and the numbers in parentheses correspond to the number of hours per week which students spend taking that particular course in that teaching format.

The following table show the number of credits for each Bar-Ilan course across the 4 years of the programme. One Bar-Ilan credit corresponds to 3 ECTS.

	Subject	Bar-Ilan credit points	ECTS
Year 1	<i>General & Cell Biology</i>	1	3
	<i>General Physics 1</i>	2	6
	<i>General Physics 2</i>	2.5	7.5
	<i>General Physics Lab</i>	1	3
	<i>General Optics</i>	4	12
	<i>Mathematics</i>	2	6
	<i>Statistics</i>	1	3
	<i>Biophysics & Neurophysiology</i>	2	6
	<i>General Chemistry & Organic Chemistry</i>	2	6
	<i>Biochemistry</i>	2	6
	<i>Introduction to Optometry</i>	1	3
	<i>Visual Optics & Physiological Optics</i>	1.5	4.5
Year 2	<i>Neurophysiology of Vision 1</i>	1.5	4.5
	<i>Neurophysiology of Vision 2</i>	1.5	4.5
	<i>Microbiology</i>	1	3
	<i>Ophthalmic Lenses 1</i>	1.5	4.5
	<i>Ophthalmic Lenses 2</i>	1.5	4.5
	<i>Anatomy & Physiology of the Visual System</i>	3	9
	<i>Ophthalmic Dispensing 1</i>	2.5	7.5
	<i>Ophthalmic Dispensing 2 (lab)</i>	1.5	4.5
	<i>Visual Sensation & Perception 1</i>	1	3
	<i>Visual Sensation & Perception 2</i>	1	3
	<i>General Virology</i>	1	3
	<i>General Pathology</i>	1	3
	<i>Binocular Vision</i>	1	3
	<i>General Anatomy & Physiology</i>	2	6
	<i>Optometric Theory & Methods 1</i>	2	6
	<i>Optometric Theory & Methods 2</i>	2	6
	<i>Optometric Theory & Methods 1 Clinic</i>	1.5	4.5
	<i>Optometric Theory & Methods 2 Clinic</i>	1.5	4.5
Year 3	<i>Contact Lenses 1</i>	2	6
	<i>Contact Lenses 1 Clinic</i>	0.5	1.5
	<i>Contact Lenses 1</i>	1	3
	<i>Contact Lenses 1 Clinic</i>	0.5	1.5
	<i>Low Vision</i>	1	3
	<i>Modern Optics & Lasers</i>	1	3
	<i>Anterior Segment Pathology</i>	2	6
	<i>Practical Skills in Optometry</i>	1	3
	<i>Pathology of the Eye- Posterior Segment</i>	1	3
	<i>Genetics</i>	1	3

	<i>Paediatric Optometry</i>	1	3
	<i>Vision Therapy & Orthoptics</i>	1	3
	<i>Vision Therapy & Orthoptics- Clinic</i>	1	3
	<i>Optometric Theory & Methods 3</i>	1	3
	<i>Optometric Theory & Methods 4</i>	1	3
	<i>Optometric Theory & Methods 3 Clinic</i>	3	9
	<i>Optometric Theory & Methods 4 Clinic</i>	3	9
	<i>Immunology</i>	1	3
Year 4	<i>Contact Lenses 3</i>	2	6
	<i>Contact Lenses 1 clinic</i>	3	9
	<i>Advanced Clinical Optometry</i>	1	3
	<i>Selected Topics in Optometry</i>	1	3
	<i>General & Ocular Pharmacology</i>	2	6
	<i>Epidemiology & Biostatistics</i>	1	3
	<i>Orthoptics Part 1</i>	1	3
	<i>Orthoptics Part 2</i>	1	3
	<i>Vision Therapy & Orthoptics -Clinic 1</i>	1	3
	<i>Vision Therapy & Orthoptics -Clinic 2</i>	1	3
	<i>Geriatric Optometry</i>	0.5	1.5
	<i>Optometric Theory & Methods 5</i>	3	9
	<i>Optometric Theory & Methods 6</i>	3	9
	<i>Seminar</i>	1.5	4.5

The first year of the programme provides the basic science foundation for the training in optometric and vision science. The first year also contains some theoretical training in optics and in a module called "Introduction to Optometry". There is no practical or clinical training in optometric science in the first year but this starts in the 2nd year and builds on the basic knowledge gained earlier in the programme. In year 2, students develop clinical skills in refraction and investigative techniques and later, knowledge of ocular disease, binocular vision, low vision and paediatrics. Lecture material is supplied ahead of time via the e-learning platform Moodle. Lectures are sometimes recorded, at the discretion of the lecturer. Attendance at all classes is nominally mandatory but some teaching staff do not take attendance at lectures. For the practical sessions, students are split into smaller groups and have set tasks and worksheets to complete. Final year students do not undertake a research project but instead they take a module called "Selected topics in Optometry" (3 ECTS).

Together with senior members of the programme team, the Visitors met the Dean of the Faculty of Life Sciences at Bar-Ilan University. It was evident to the Panel that the optometry team are valued by the Faculty, not only in relation to the B.Sc. provision but also in relation to their contribution in research which is highly-rated. The Dean indicated that there is no pressure to increase student numbers on the B.Sc. programme at this time. We appreciate the time given to the Panel by the senior management which helped the panel to gain an understanding of the wider objectives and aspirations of Bar-Ilan.

The Eye Clinic at Bar-Ilan provides optometric services through General eyecare, Contact lenses, Low Vision, Vision Therapy & Orthoptics and Dispensing clinics. These clinical services are promoted to the community, staff and student population and the School has clinics running five days a week.

In the primary eyecare clinics, students work on a 1:1 basis with the patient and there is a 4:1 student/supervisor ratio. In the third year, primary care (refraction) students perform full optometric examinations individually under supervision. During the 2nd semester of 3rd year, in addition to the full examinations conducted, the student observes 18 tests conducted by student colleagues and is required to summarize the main clinical points of the case and examination. Third year students will see a minimum of 22 patients during the year. They are encouraged to bring patients into the older clinic facility, particularly using family and friends for the initial examinations to gain confidence in seeing 'real' patients. In the fourth year, the students attend the general clinics with increased frequency, and each student will see a minimum of 52 patients for full eye examination, making a minimum of 74 patients for general eye examination across the programme. They have two hours to examine each patient in both the 3rd and 4th years of the programme.

Listed below are the patient minimums numbers in the different clinics (full examination, without counting repeat and moc patients):

Year	Refraction	Contact lenses	LV	VT	Mobile-Van	Wolfson (minimum)	*Pediatric clinic	Total
Third	22	0	2	0	0	0	0	24
Fourth	52	6	12	4	10	0	4	88
Sum	74	6	14	4	10	0	4	112

**Note the above table does not include the minimum patient numbers from the Wolfson Medical Centre. With these numbers added, the total increases to 127.*

One of the senior members of the team is an ophthalmologist. In addition to teaching responsibilities, this individual is heavily involved in research. Unfortunately, the School is not currently able to support training in the use of diagnostic drugs (cycloplegia, mydriatics and topical anaesthetics). At the present time, the only exposure to diagnostic drug use which the students receive is gained whilst on placement at the Wolfson Medical Centre, where links have been established and where all final-year students attend for an intensive, four day placement.

Contact lens clinics start in the 4th year and a minimum of 6 patients are examined by each student. Students attend one clinic a week throughout their final year. The students work alone or in pairs (based on the number of patients) with a ratio of 1:4 between instructors and students. The clinical contact lenses training starts during the third year in laboratory format where the students gain the basic skills and practice on each other. The Panel were assured that every final year student will see at least one RGP contact lens patient during the programme. They course team try to arrange it so that the same students who have fitted the contact lenses also see the patient in the clinic for their aftercare appointments.

In the fourth year, all students participate in orthoptics and vision therapy clinics. There are 4 patients and 6 students, thus some students work in pairs and some work individually. The students perform the sessions with the patients and are responsible for the treatment as well as the treatment plan for the following week and prescribing the home-based exercises. These sessions are supervised by an experienced staff member. The results and treatment plan are discussed by the students with the clinical supervisor after the patient leaves the clinic, however students do not currently write up the cases as case reports. As with other clinics, the clinics are arranged so that the same student will examine the patient each time they return. Children who attend these clinics undergo full primary care eye examination before being seen in the orthoptics and visual therapy clinic. Primary care eye examination takes places without the use of cycloplegia. Going forward, it is expected that more paediatric experience will be gained at the Wolfson Medical Centre.

Each final year student is required to dispense a minimum of ten pairs of glasses based on eye examinations which they themselves have completed. In the patient log, the students mark the type of frames and lenses fitted. This total of 10 includes occupational and eye-protective eyewear. There is a minimum requirement for at least 2 multifocal lens dispensing, and for a minimum of 1 VDU and 1 protective eyewear case.

The School runs an impressive initiative which they refer to as the 'Mobile Van'. As an optometric mobile screening service and low vision clinic, optometry students and qualified optometrists travel to remote towns and villages all over Israel, where poor awareness of the importance of ocular health and visual function is common. Due to socioeconomic challenges, these populations are often unable to travel. As part of this initiative, the staff and students provide lectures on visual awareness, vision screening and treatment for these populations, where needed, is provided free of charge. The locations visited by the van includes schools, nursing homes, and assisted living complexes. Individuals who need more complex and/or follow-up treatment, such as low vision patients or those needing vision therapy and/or contact lenses, are referred to the BIU university's clinics for a free of charge service. After each eye examination, a free of charge pair of glasses is offered to each patient. If there is a need for low vision aids, they are provided at minimal cost. A total of two mobile activities are conducted by each student during the 4th year of the programme.

During the visit, the Panel attended the Wolfson Medical Centre. The School of Optometry and Vision Science at BIU has recently entered an agreement with the Wolfson whereby 4th year students attend the Medical Centre for a period of 4 days during which they get experience of a range of clinics run by ophthalmologists or other eye care professionals (including Optometrists) working under ophthalmological supervision. Students attend in an observational capacity but frequently they seemed to get the opportunity to examine the patient themselves. The Wolfson is an extremely busy public hospital which receives a hugely diverse range of patients. During the visit to the Wolfson by the Panel, the first batch of BIU students were attending and they had the opportunity to sit in on binocular vision, medical retina and glaucoma clinics. This is a very useful initiative, both from the point of view of giving students experience of ocular pathology and some familiarity with the use of diagnostic drugs for ocular examination. There is a requirement for each student to record the results of examination of a minimum of fifteen patients which are logged on Meditrek. A number of the staff at the Wolfson were Optometrists (n=5), many of whom had trained at BIU.

The Visitors met with a sample of students from 1st, 2nd, 3rd and 4th years of the B.Sc. programme. There was a mixed profile of backgrounds, both Jewish and Arab. Around three-quarters of the students are female. The language of instruction is Hebrew, hence a good standard of Hebrew is required to join the course. One subject is taught in English. Some of the 3rd and 4th year students were working part-time in optometric practice and several of the students had family connections in the profession. The views expressed by students about the teaching on the course and the support from staff were overwhelming positive. There is a feeling that academic and administrative staff are very supportive of students and quick to respond to queries. Students in the later years of the course were appreciative of the availability of facilities for practice. They were not generally aware of the European Diploma in Optometry. There does not appear to be a staff/student committee, but the students are asked to feedback on modules and teaching at the end of each semester. These results are reviewed, and issues and areas for improvement are addressed. None of the students had experienced mydriasis or cycloplegia for the reasons outlined earlier.

The panel met with a large number of the staff who teach on the programme, both in a scheduled meeting and during observations of the various practical/clinical sessions that were running during the time of the visit. All of the staff encountered by the Panel demonstrated a high level of engagement, as well as a good understanding of the accreditation process and of its value to the School. They were proud of the progress that has been made since the School had embarked on the Oculus project. In addition, they recognised the

improvements to the training they were providing to their students which were taking place as the school continued with the EDO accreditation process. The staff indicated a positive attitude of the University to staff development and it was clear to the Panel that there is a strong research culture with the School, Faculty and the wider University. Each new faculty member is required to hold a doctorate or to enrol upon a doctorate programme. Attendance by all staff at a weekly, online seminar is strongly encouraged and attendance at national optometric conferences is both encouraged and subsidised by the University. Staff training is provided as necessary for staff taking up new roles or to refresh knowledge. On two occasions per year, there is a meeting of clinical staff to discuss matters relating to the running of the various clinics. One of the team has recently been awarded a grant to support the development of learning via digital means and there are plans to extend the volume of digital material available to support teaching activity.

An electronic patient record, 'My Vision Express' (MVE) is used to log all patient eye examinations. The course team at Bar-Ilan use the Meditrek system for logging patient experience and an example of the output from the system was made available to Visitors in the documentation received prior to the visit. It is clear that the course team make considerable efforts to provide parity of experience to students. The students have minimum numbers of patients/episodes that they are required to undertake, and they cannot graduate unless these are achieved. The Visitors observed students undertaking general eyecare clinics. It was noted that posterior segment examination was mainly undertaken using direct ophthalmoscopy, with slit lamp biomicroscopy + Volk (or similar) used infrequently. The Panel recognise the issue surrounding the use of diagnostic drugs but would point out that slit lamp biomicroscopy can be carried out through an undilated pupil. To reflect modern optometric practice, the Panel would encourage the course team to emphasise to students about the value of slit lamp biomicroscopy with a 90D lens. The Visitors did not observe perimetry or OCT being used during any clinical observations.

The Visitors observed students working with low vision patients, where they prescribed low visual aids and signposted patients to additional services, including rehabilitation and social services. The Panel learned that students work in pairs or in threes when examining patients in this clinic. The Visitors were impressed by the diversity of the patients who attend this clinic. The leader of the Low Vision Clinics has close links with a low vision charity. Students perform OCT and visual fields on most patients in the Low Vision clinic. Low vision clinics start in the summer semester between the third and the fourth year. During the summer, the students work in groups of 2-3 and examine 2 patients. During the following fall and spring semesters, each student examines 6 patients per semester. In total, each student examines 14 low vision patients. The clinical activity is monitored by the clinical supervisor (a low vision specialist).

The Visitors also met with five recent graduates from the programme, three of whom now work in community optical practices. The others work in a refractive surgery clinic and in an ophthalmology clinic, specialising in working with patients with keratoconus. They reported that they felt their training was very good and prepared them to a high level, but they were frustrated about not being able to use these skills in primary eye care due to legal limitations of diagnosing and using diagnostic drugs. While some conducted fundus examination and tonometry routinely, it was clear that not everyone did. Only one of the five graduates is a member of the Israel Council of Optometry.

The Visitors also met with several employers of recent graduates. They all reported that the Bar-Ilan graduates have good knowledge, and good communication and clinical skills. They noted that relationships with ophthalmology have improved in recent years. The scope of optometry has not changed recently but this was not seen as a particular problem. Some frustration was expressed at the legal constraints that apply to the practice of optometry in Israel, and there was a feeling that the academics in Israel should be pushing for this. The use of diagnostic drugs and related ocular health checks was felt by one of the employers representing a large chain to be a long way away. The employers representing chains indicated that while

they do have an internal standard for what should be included in an eye examination, checks on eye health only become standard in older patients. Another employer also said that ophthalmoscopy was not included in their eye examination protocol. There appear to be considerable differences in the level of equipment available in different optical practices.

The Panel also met with the staff who are involved in making plans for developing the clinical portfolio and for training the students in how to prepare their clinical cases for the portfolio, which in turn will be submitted in partial fulfilment of the requirements for EDO. The Panel were impressed with the structured approach which they plan to use to train BIU students and the Panel looks forward to seeing progress in relation to this crucially important part of the EDO.

The Panel met with the President of the Israel Council of Optometry, together with senior members of the optometry course teams at both Bar-Ilan University and Hadassah Academic College. It was extremely useful for the Panel to hear the discussions about the current situation and about the challenges faced by the profession in Israel, which are believed to be considerable. There were discussions about the need for a definition of 'child' and 'elderly' which appear in the law relating to optometry but which are not specified. The issue of orthoptics and vision therapy was also discussed at length. There is a postgraduate course for optometrists which is organised by the paediatric ophthalmologists. Optometrists who complete this course now work under the supervision of ophthalmology and there was a strong feeling that licensed optometrists should be allowed to offer orthoptics/vision therapy autonomously. There was recognition that some of the research being conducted and published by optometrists in Israel could prove useful in lobbying the relevant individuals, for example research showing the unmet need for refractive correction amongst Israeli school children. The shortage of optometrists in Israel, stemming in part from the fact that many work part-time was also discussed. Clearly, the issue of right to use diagnostic drugs is only one of the issues facing the profession in Israel. The Israeli Council has recently published guidelines for the standard for an eye examination.

Areas for Improvement

- *There is a need to ensure that posterior segment examination of the eye is embedded as part of a routine eye examination beyond direct ophthalmoscopy. Slit lamp biomicroscopy + Volk, in particular, is vital to learn during training.*
- *The course team could be more proactive in using their ophthalmologically-trained staff to support students in using diagnostic drugs in clinics. For example, students could gain valuable experience in this regard by using diagnostic drugs, under appropriate supervision, on each other and on friends and relatives whom they invite into the clinics.*
- *Visual fields assessment does not seem to get much prominence in clinical assessments of patients and hence there is a need to ensure this is more routinely used. Colour vision could also be incorporated more regularly into primary care examinations.*
- *There is a need to further develop and roll out the plan for Portfolio assessment including; clear assessment structure to ensure portfolios meet the standard of the EDO, plagiarism check, embedding*

of research methods/EBP-learning in the write up of cases and by encouraging reflective practice, arrangements for final sign off, and a means to check the veracity of the 130 cases.

3. Summary analysis of the self-assessment document

Part A

A number of modules, chiefly in year 2 of the B.Sc. programme, support the knowledge base and learning outcomes for Part A with sufficient depth. Ophthalmic lenses 1 & 2 and Optical Dispensing 1 & 2 are modules where the bulk of this material is delivered. Practical competencies are achieved through successful completion of assessments.

Decision: Standard Met Subject to Fulfilment of Condition 4 [conditions listed below]

Part B

A broad range of modules, chiefly in years 2 and 3 of the B.Sc. Optometry programme support the subject areas and learning outcomes for Part B. 'Methods of Optometric Examination' 1-4, and 'Optometric Theory and Methods' 1-4 are the modules where much of Part B material is covered, alongside the modules on binocular vision, vision therapy and orthoptics theory, paediatric optometry, visual sensation and perception, ocular pathology, contact lenses and low vision.

Provided that each student sees at least one patient for rigid gas permeable contact lens fitting and that each student sees at least one patient under 12 years of age (either in the vision therapy clinic or for a routine eye examination in the primary eye care clinic), the Panel finds that the requirements for Part B are met except in relation to a small, though important, number of topics.

Decision: Standard Met Subject to Fulfilment of Conditions 2 & 6 [conditions listed below]

Part C

A range of modules, chiefly across years 2 & 3 of the programme, support the subject areas and learning outcomes for Part C. These include general anatomy and physiology, anatomy and physiology of the eye, microbiology and pathology, general medical disorders, and general and ocular pharmacology.

The weighting given to pharmacology with the programme is too low and there are concerns about the embedding of investigative techniques in primary eye examinations, about the training and evaluation in making appropriate referrals and about the practical experience of dealing with refractive surgery patients.

Decision: Standard Met Subject to Fulfilment of Conditions 2, 3, 5, 6 & 7 [conditions listed below]

Part D

Learning outcomes for professional conduct and communication are delivered to a sufficient level. The staff, student and patient populations are diverse but there is a need to ensure that cross-cultural experience is explicitly covered in the programme

Decision: Standard Met Subject to Fulfilment of Condition 8 [see below]

4. Analysis of the Clinical Portfolio

A system for production of a portfolio of clinical experience has not yet been established and we did not see any examples of portfolios or of cases written up by students. The course team introduced the Panel to the means by which students will be introduced to, and trained in, the preparation of case reports that will be needed for the cases that will be required for the EDO portfolio, in particular for the twenty detailed cases. The Panel were impressed by these plans and believe that the proposed training is likely to be train students to prepare cases to a standard that will meet the requirements of the EDO portfolio.

At present, students enter the results from their general and specialist clinic patient experiences on Meditrek. Since Meditrek is logging patient experiences which in turn are monitored by the clinical faculty, the course team can easily track patient numbers and become aware when minimum patient numbers for different students are off-target.

The arrangement of the clinics at Bar-Ilan means that the same student who has examined the patient in the general/primary-care clinics continues with the patient for any dispensing that is required. This is a real advantage in terms of writing up 'complete' cases for the EDO portfolio.

Whilst discussion of the cases with supervisors in the clinic is currently taking place, the students are not at present writing reflections on their cases. However, this is what the new training system for case presentation is designed to address. In developing the systems for portfolio preparation by students and evaluation by the course team, the course team is strongly encouraged to continue to pay close attention to [the ECOO Guidelines Part III: Portfolio Guidance](#).

There was some uncertainty amongst the course team about how case numbers should be counted, for example, when the same patient is seen by the same student practitioner on multiple occasions (e.g. in the vision therapy clinic). The Panel made it clear that in such an instance, it is the number of patients seen not the number of patient visits that counts towards the 150 cases required.

The course team recognise that at present, not all students will achieve 150 patient episodes consisting of primary healthcare eye examinations that demonstrate their optometric knowledge and skills during the B.Sc. in Optometry programme. At the time of the visit, no decision has been taken about whether the intention going forward will be to require all students, as part of their B.Sc. in Optometry qualification, to submit a portfolio that will meet the requirements for the EDO within their 4-year programme. Alternatively, the course team may wish to partner with external optometry clinics to enable students to undertake an internship as part of their B.Sc. degree programme, in order to gain further patient episodes. Another approach would be to allow graduates of the Bar-Ilan programme a period of time post-graduation in which to submit their completed portfolio for EDO. ECOO allows up to two years post-graduation during which the portfolio can be submitted.

Again, at the time of the visit, the course team had not decided upon the mechanism to be used for overarching assessment of the Portfolios, for example, in terms of the establishment of pass and fail criteria, and about how the veracity of the other 130 non-detailed cases could, if needed, be established. The Panel would be pleased to comment on proposals for the assessment of the portfolios, and indeed on any aspect of the process by which some, or all, Bar-Ilan graduates will submit their portfolio as they seek to gain the EDO.

Decision: Decision deferred until we see a representative sample of portfolios submitted, and the detailed plans of the course team for portfolio assessment.

5. Conclusions

The EDO standard for Parts A, B, C & D are met subject to fulfilment of Conditions 2-8 [see below]. In relation to the Portfolios (Condition 1), our decision is deferred until we see a sample of portfolios submitted, and the detailed plans of the course team for Portfolio assessment.

The Visitors would like to thank Tzofia Simkovich, Prof Yossi Mendel, Prof Uri Polat and the entire staff of the School of Optometry and Vision Science for their accommodation and organisation of the Accreditation visit. We recognise the dedicated efforts required to prepare for and undertake accreditation for the EDO.

The Visitors recognise the significant developments in clinical experience students now receive compared to the programme evaluated during the OCULUS visit in 2016. During the recent visit, we were also pleased to see the new clinic facilities and to hear very good feedback from employers on the quality of graduates. We were also very pleased to note the positive comments from students and graduates of the programme. We especially note the dedication of staff creating a supportive environment for students.

Based upon our observations, below we list eight 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 recommendations and other areas for improvement noted in the narrative above.

Should these conditions be met, Full Accreditation can be granted. As the next step, the Panel suggests that the Course team develop a plan (including timelines) for how the team propose to meet the conditions that are set out below. The timing of awarding accreditation will depend on when the University can fulfil the conditions.

CONDITIONS

1. **European Diploma in Optometry Portfolio of Clinical Experience.**
 - a. Every student should have a complete Portfolio created with all information set out in the [“ECOO Guidelines Part III: Portfolio guidance”](#), drawn together in a single folder/document.
 - b. The course team need to establish a system for holistic assessment of portfolio against the requirements of the EDO portfolio of clinical experience, ensuring a mechanism is in place for establishing the veracity and quality of the 20 detailed cases and the other 130 examinations.
2. **Experience of using diagnostic drugs for eye examination.** There is a need to give all Bar-Ilan students the experience of using diagnostic drugs to aid refraction and to conduct various eye examination procedures (including contact tonometry, gonioscopy and examination of the posterior segment via a dilated pupil).
3. **Embedding clinical investigative techniques.** There is a need to further embed clinical investigative techniques in the formal practical-clinical teaching, as well as in the examinations conducted by Bar-Ilan students in the University clinics. In particular, this condition relates to the clinical techniques of: (i) binocular indirect ophthalmoscopy for the posterior segment examination of the eye in 8 directions of gaze during routine eye examination; (ii) visual field examination; please embed perimetry as a more commonly used clinical procedure in general clinics; (iii) Contact (Goldman) tonometry and (iv) Greater prominence of colour vision testing in general clinics.
4. **Cases of protective eye wear and spectacle non-tolerance.** There is a need to ensure that all students are exposed to at least one clinical scenario (ideally practical experience) where protective eye wear is required, and one where there is a case of non-tolerance to a new optical appliance/correction.
5. **Experience of referrals.** There is a need to ensure that all students are taught about how to make appropriate referrals to medical, ophthalmological or other colleagues, and that they are evaluated on their ability to refer appropriately.
6. **Content and weighting of the knowledge base.** There is a need to add greater depth of coverage of colour vision theory so as to give a sufficient knowledge base in this topic. There is also a need to increase the weighting given to the topics of general and ocular pharmacology, in particular in relation to cycloplegics, mydriatics and miotics.
7. **Clinical experience of refractive surgery.** All students should be exposed to clinical cases of refractive surgery, including pre- and post-operative cases.
8. **Cross-cultural experience.** There is a need to explicitly cover cross-cultural experience in the programme, so as to be able to demonstrate that all students have exhibited the ability to communicate to appropriate ethical and cultural standards.

RECOMMENDATIONS

We recommend that the course team should:

1. To reflect contemporary optometric practice, we would encourage the routine adoption of slit lamp biomicroscopy + Volk as the primary means to examine the internal structure of the eye, with direct ophthalmoscopy as a secondary technique.
2. Related to 1., we would suggest that the team encourage every student to purchase a Volk lens, or equivalent, as part of their equipment list.
3. Increase awareness of the European Diploma in Optometry amongst the students.
4. Encourage stronger links with the Israel Council of Optometry between graduates and students of Bar-Ilan and encourage students to become members of their professional association, on graduation, or if possible, during their studies.

COMMENDATIONS

We commend the Course team on:

1. The volume of experience that students receive in patients with low vision.
2. The mobile van initiative. This provides both a great service to the community, particularly more remote and poorer areas, and a fantastic way for students to get experience in providing primary eye care to diverse patient populations.
3. The link with the Wolfson Hospital. This will cultivate links with hospital optometry and ophthalmology to produce a broad range of opportunities for students to gain experience of patients with diverse ocular conditions.
4. The plans for training students in how to prepare their case reports.
5. The dedication and positivity of both staff and students.