



ADMISSION IN BS OPTOMETRY

PROSPECTUS

DEPARTMENT OF OPHTHALMOLOGY &
VISUAL SCIENCES (DOVS), DUHS

Session

2023-24

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MESSAGE BY CHAIRPERSON



DR. MAZHAR UL HASSAN

MBBS, MCPS, FCPS (OPHTH)

Fellowship in Pediatric Ophthalmology (**Italy**)

Professor & Head, Department of Ophthalmology UNIT-II

Chairperson of Dept of Ophthalmology (DMC, DUHS)

Dr Ruth K.M Pfau, Civil Hospital Karachi.

Dow University of Health Sciences is the only Public University in Sindh to offer the course of BS in Optometry. The Department of Ophthalmology and Visual Sciences is pleased to start this course in January 2020.

This course will be mainly based in the Dow International Medical College. However students will spend some time at the Dow Medical College. The Department of Ophthalmology and Visual Sciences has an excellent clinical faculty and this is going to be expanded with the addition of staff qualified in Optometry.

MESSAGE BY DIRECTOR



PROF. NISAR AHMED SIYAL
MBBS (DOW), MCPS, FCPS, FCPS VITREORATINA
PROFESSOR & HEAD, DEPARTMENT OF OPHTHALOMOLOGY & VISUAL SCIENCES
DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)
DOW UNIVERSITY OF HEALTH & SCIENCES (DUHS)

Students of Optometry will be taught medical sciences and optics relevant to the field of Optometry. They will have exposure to a large number of clinical cases.

After completing the course, they will have enough knowledge and expertise to become primary care providers to people with visual complaints. They will have employment opportunities in public and private sector institutes as well as eye clinics and optical outlets.

OVERVIEW OF THE INSTITUTE:

The Bachelor of Science (BS) in Optometry program, offered by the Department of Ophthalmology and Visual Sciences, is a comprehensive and specialized four-year undergraduate degree program designed to provide students with a solid foundation in the field of optometry. This program aims to equip students with the knowledge, skills, and practical experience necessary to excel as optometrists and eye care professionals.

Program Structure:

The BS Optometry program is structured over four academic years, with each year comprising a combination of theoretical coursework, laboratory sessions, clinical rotations, and practical training. The curriculum is carefully crafted to cover a wide range of subjects related to ocular health, vision science, and clinical practice.

Curriculum Highlights:

Students enrolled in the program will study various core subjects, including:

- **Anatomy and Physiology of the Eye:** In-depth understanding of the structure and function of the eye is essential for diagnosing and treating visual disorders.
- **Optics and Refraction:** Comprehensive study of light and its interaction with the eye, covering topics like lenses, spectacles, and contact lenses.
- **Ocular Diseases:** Exploration of common and rare eye conditions, their causes, symptoms, and management.
- **Clinical Optometry:** Practical training in conducting comprehensive eye examinations, visual acuity testing, and prescribing corrective measures.
- **Binocular Vision and Vision Therapy:** Study of how the eyes work together and strategies for managing issues related to binocular vision.
- **Low Vision Rehabilitation:** Techniques to assist individuals with low vision and help them lead independent lives.

- **Pediatric and Geriatric Optometry:** Specialized care for different age groups, considering their unique visual needs.
- **Contact Lens Fitting and Care:** Learning to fit, prescribe, and educate patients about contact lenses.

Clinical Experience:

A significant component of the program involves hands-on clinical experience. Students will have the opportunity to work under the guidance of experienced optometrists in real-world settings such as eye clinics and hospitals. This exposure is vital for developing clinical skills, honing patient interaction abilities, and gaining insights into the practical challenges of the field.

Research and Innovation:

As the field of optometry is constantly evolving, the program encourages students to engage in research projects and stay updated with the latest advancements in eye care technology and treatment methods. This emphasis on research fosters critical thinking and problem-solving skills.

OBJECTIVES OF THE PROGRAM:

At the core of the Bachelor of Science (BS) in Optometry program offered by the Department of Ophthalmology and Visual Sciences lies a set of well-defined and robust program objectives.

- 1. Clinical Proficiency:** To equip students with the clinical skills and knowledge necessary to perform comprehensive eye exams, diagnose visual disorders, and prescribe appropriate corrective measures.
- 2. Theoretical Knowledge:** To provide students with a strong foundation in the theoretical aspects of optometry, including optics, anatomy and physiology of the eye, and ocular diseases.
- 3. Optical Technology:** To familiarize students with various optical instruments and technologies used in eye examinations and vision correction.
- 4. Patient Communication:** To develop effective communication skills that allow students to interact professionally and compassionately with patients of diverse backgrounds, addressing their concerns and educating them about eye health.
- 5. Ethical Practice:** To instill ethical values and professionalism in students, ensuring that they adhere to the highest standards of patient care and confidentiality.
- 6. Research and Evidence-Based Practice:** To introduce students to the importance of evidence-based practice in optometry, encouraging them to critically evaluate research and apply the latest findings to clinical decision-making.
- 7. Interdisciplinary Collaboration:** To promote collaboration with other healthcare professionals, fostering an understanding of the role of optometry within the broader healthcare system.

8. **Community Engagement:** To encourage students to engage with their communities, raising awareness about eye health, conducting vision screenings, and participating in outreach programs.
9. **Critical Thinking:** To develop students' ability to analyze complex clinical cases, make accurate diagnoses, and formulate appropriate treatment plans.
10. **Professional Development:** To offer opportunities for students to participate in workshops, conferences, and continuing education to stay updated with the evolving field of optometry.
11. **Cultural Competence:** To enhance students' cultural sensitivity and awareness, enabling them to provide culturally competent care to a diverse patient population.
12. **Leadership and Advocacy:** To nurture leadership skills and the understanding of advocacy's role in promoting eye health and advancing the field of optometry.

Career Prospects / Opportunities:

Upon successful completion of the BS Optometry program, graduates can pursue various career paths, including:

- **Optometrist:** Graduates can become licensed optometrists, diagnosing and treating visual disorders, prescribing corrective measures, and providing primary eye care.
- **Clinical Practice:** Many optometrists choose to establish their own private practices or join existing eye care clinics.
- **Academic and Research Roles:** Graduates can contribute to the academic community by pursuing advanced degrees, conducting research, and teaching aspiring optometrists.
- **Industry and Technology:** Opportunities exist in the development and promotion of eyewear, contact lenses, and other vision-related products.
- **Hospital and Multispecialty Clinics:** Optometrists can collaborate with ophthalmologists and other medical professionals in hospital settings.

The BS Optometry program offered by the Department of Ophthalmology and Visual Sciences provides a comprehensive education that prepares students to become skilled and compassionate eye care providers, contributing to the overall well-being of individuals and communities.

Eligibility Criteria:

- HSSC Pre – Medical or Equivalent Examination (e.g. A – Level, 12th grade etc) duly certified by IBCC with minimum 60% marks.
- Candidate’s PRC & Domicile of Sindh.

Number of Seats: 30

Fee Structure of BS Optometry

Fee Type	BS Optometry
Admission Fee (Once only)	45,000
Tuition Fee (Yearly)	143,231
Document Verification Charges (Once only)	2,500
Student Activity Fee (Yearly)	10,000
Library Charges (Yearly)	10,000
Total	210,731

- Transport Fee (Optional) Rs. 36,000/- per year.

RULES FOR THE PAYMENT OF FEE

Fee for 2nd, 3rd & 4th year tuition fee (of the respective categories) will have to be paid within the specified time.

Late fee for succeeding years will be charged if fee is not paid within the provided deadline as per rates below:

- First month (after lapse of first month % 2.5.....of tuition fee
- Second month % 5.0.....of tuition fee
- Third month %7.5.....of tuition fee
- Fourth month%10of tuition fee

Fee of all categories will be increased by 10% every year.

AFTER FOUR MONTHS OF NON-PAYMENT, THE SEAT IS LIABLE TO BE CANCELLED AND STUDENT WILL NOT BE ALLOWED TO APPEAR IN ANY EXAMINATION.

- Fee deposited is refundable as per the Refund policy guidelines of the DUHS.
- Taxes will be applied as per the FBR rules.
- Hostel and Transport fee will be valid till December, 2024.
- Amounts stated in the fee vouchers are excluded of all Bank Charges.
- The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances.

Curriculum:

General Education Courses (GEC) Divided Into 3 Categories:

HEC Requirement for Undergraduate Courses			Requirement (BS OPTOMETRY)	Credit Hours	
1.	Breadth Courses	Arts And Humanities (2 Courses)	<ol style="list-style-type: none"> 1. Philosophy 2. History 3. Creative Arts 	<ul style="list-style-type: none"> • History • Foreign Language 	3 3
		Social Sciences (2 Courses)	<ol style="list-style-type: none"> 1. Anthropology 2. Economics 3. Psychology 4. Sociology 5. Political Science 	<ul style="list-style-type: none"> • Psychology • Sociology 	3 3
		Natural Sciences (2 Courses)	<ol style="list-style-type: none"> 1. Physics 2. Chemistry 3. Geology 4. Biology 5. Ecology 	<ul style="list-style-type: none"> • Physics • Biology 	3 3
2.	Functional Skill Courses	Expository Writing (3 Courses)	<ol style="list-style-type: none"> 1. Writing or Publishing Technical Papers 2. Editing and Copy-Editing of documents 3. Learning how to translate from one Language to another 	<ul style="list-style-type: none"> • Basic English writing • Advance English writing • Academic Writing 	3 3 3
		Quantitative Reasoning (2 Courses)	<ol style="list-style-type: none"> 1. Information Technology 	<ul style="list-style-type: none"> • Computer Sciences • Biostatistics 	3 3
3.	Civilizational Courses	Pakistan Studies (1 Course)		<ul style="list-style-type: none"> • Pakistan Studies 	3
		Islamiat Or Religious Studies (1 Course)		<ul style="list-style-type: none"> • Islamiat Or Religious studies 	3
			Total Credit Hours: 39		

Basic Sciences Major (BS-M):

S.#	Major	Credit Hours
1.	Physiology	3
2.	Biochemistry	3
3.	Anatomy	3
4.	Research Methodology	3
5.	Research Project	3
		Total: 15

BS OPTOMETRY Major Subjects (M):

S.#	Major	Credit Hours
1.	Anatomy Ocular	3
2.	Physiology Ocular	3
3.	Ocular Disease I	3
4.	Pharmacology Ocular	3
5.	Ocular Disease II	3
6.	Contact Lens I	3
7.	Clinical Refraction I	3
8.	Clinical Refraction II	3
9.	Geometrical Optics	3
10.	Low vision	3
11.	Basic Orthoptics	3
12.	Visual Optics	3
13.	Instrumental Optics	3
14.	Low Vision Clinic	3
15.	Dispensing Optics	3
16.	Community ophthalmology	3
17.	Orthoptics advance	3
18.	Pediatric Optometry I	3
19.	Optical Shop Management	3
20.	Health & eye Care Management	3
21.	Specialized clinic	3
22.	Contact Lens II	3
23.	Orthoptics Clinic	3
24.	Contact Lens Clinic	3

Note: Student can opt any 9 courses (each course is of three credit hours) to fulfill the minimum credit requirement to qualify for the Bachelor of Science degree.

Semester	Courses	Credits hours	Credit hours/ semester
I	<ol style="list-style-type: none"> 1. Islamiat / Ethics 2. Computer Science 3. General Physiology 4. English Foundation 5. Physics 6. Anatomy (General) 	3 3 3 3 3 3	18
II	<ol style="list-style-type: none"> 1. History 2. Psychology 3. English Advance 4. Biology 5. General Biochemistry 6. Pakistan Studies 	3 3 3 3 3 3	18
III	<ol style="list-style-type: none"> 1. Academic Writing 2. Bio Statics 3. Foreign Languages 4. Geometric optics 5. Sociology 	3 3 3 3 3	15
IV	<ol style="list-style-type: none"> 1. Ocular Physiology 2. Ocular Anatomy 3. Visual Optics 4. Ocular disease I (Anterior segment) 5. Instrumental optics 	3 3 3 3 3	15
V	<ol style="list-style-type: none"> 1. Contact lens I 2. Ocular disease II (Posterior segment) 3. Clinical refraction I 4. Basic orthoptic 5. Low vision 	3 3 3 3 3	15
VI	<ol style="list-style-type: none"> 1. Orthoptic Advance 2. Contact lens II 3. Clinical refraction II 4. Dispensing Optics 5. Pharmacology 	3 3 3 3 3	15

VII	1. Optical shop management	3	15
	2. Research Methodology	3	
	3. Health & Eye care management	3	
	4. Community Ophthalmology	3	
	5. Pediatric optometry I	3	
VIII	1. Contact Lens Clinic	3	15
	2. Low vision Clinic	3	
	3. Orthoptic Clinic	3	
	4. Research project	3	
	5. Specialized clinic	3	

Note: The minimum credit requirement for each semester is 15 and student can opt to take up to 21 credits per semester, provided that departmentally determined credits and pre-requisite are met.

BASIC SCHEME OF THE PROGRAM

Total numbers of credit hours	126
Duration	4 years
Semester duration	16-18 weeks
Semesters	Eight
Course load per semester	14-18 Credit hours
Number of courses per semester	5-6

TOTAL BREAKDOWN OF CREDIT HOURS

S.#		
1.	General Education Courses	39
2.	Basic Sciences Major	15
	BS OPTOMTRY	39=
	Major Subjects	54
3.	BS OPTOMTRY Minor Subjects	33
	Total	126

Assessment methods:

The BS Optometry program employs a variety of assessment methods to gauge students' comprehension, practical skills, and readiness for the challenges of the field and to ensure they meet the program's learning outcomes. The assessment methods include:

- **Written Examinations:** Regular quizzes, mid-term exams, and final assessments are used to assess students' grasp of theoretical concepts, ranging from anatomy and physiology of the eye to ocular diseases and treatment methods.
- **Practical Skills Assessments:** Practical skills are evaluated through hands-on assessments such as performing comprehensive eye examinations, measuring visual acuity, and fitting contact lenses. These assessments ensure that students can apply theoretical knowledge in real-world clinical settings.
- **Clinical Rotations:** Students undergo clinical rotations in eye clinics and hospitals, where their ability to diagnose and manage various eye conditions is observed and evaluated by experienced optometrists. These rotations provide students with exposure to diverse cases and sharpen their clinical decision-making skills.
- **Case Studies:** Analyzing and presenting case studies allows students to demonstrate their ability to apply critical thinking to real patient scenarios, integrating theoretical knowledge with practical application.
- **Research Projects:** Engaging in research projects encourages students to explore emerging topics in optometry, develop research skills, and

contribute to the advancement of the field. Their ability to design, conduct, and present research findings is assessed.

- **Practical Demonstrations:** Students may be required to demonstrate procedures such as contact lens insertion and removal, assessing binocular vision, and conducting vision therapy exercises.
- **Classroom Participation:** Active participation in discussions, group activities, and presentations showcases students' engagement with the subject matter and their ability to articulate ideas effectively.
- **Final Year Projects:** In the later years of the program, students might undertake a capstone project that integrates their knowledge and skills, demonstrating their readiness to transition into professional practice.
- **Objective Structured Clinical Examinations (OSCEs):** OSCEs involve a series of timed stations where students perform specific clinical tasks while being assessed for their proficiency, communication skills, and patient interaction.

Evaluation Criteria:

Internal Evaluation: 15%

Mid-term Examination: 15%

Terminal Examination: 70%

Total: 100%

NUMBER OF STUDENTS STUDYING TILL DATE:

Here is the list of currently enrolled students of BS optometry;

S.no.	Year	Number of students
1.	FIRST YEAR	30
2.	SECOND YEAR	29
3.	THIRD YEAR	29
4.	Fourth year	27
5.	Total number	115

Faculty:

1. Ms. Izmal Urooj
Assistant professor
Program coordinator BS(Optomerty)
BS. Vision sciences, M.Phil. Optometry.
2. Mr. Mohammad Asif
Senior lecturer
BS. Vision sciences, M.Phil. Optometry.
3. Ms. Priyanka
Senior lecturer
BS. Vision sciences, M.Phil. Optometry.
4. Ms. Saba Pirzada
Lecturer
BS. Ophthalmic Technologist
5. Ms. Umm e Farwa Mehar
Lecturer
BS. Vision sciences
6. Ms. Anum Jamali
Lecturer
BS. Vision sciences
7. Mr. Muhammad Nizam ud din Ahmed
MS BIOSTATISTICS & Epidemiology
Medical technologist
Visiting faculty (Research and biostatistics)