



TEERTHANKER MAHAVEER UNIVERSITY
(Established under Govt. of U.P. Act No.30, 2008) Delhi Road, Moradabad (U.P)

**Study & Evaluation Scheme
Of
Master in Optometry (M.OPTOM)**

Programme: Master in Optometry (M.OPTOM)
Duration: Two year (04 Semester) full time including one year Dissertation
Medium: English

Minimum Attendance Required: 75%

Maximum Credits: 97

Minimum Credits: 97

Assessment:

	Internal	External	Total
Theory	40	60	100
Practical	50	50	100

Internal Evaluation (Theory papers):

Class Test-I	Class Test-II	Class Test-III	Attendance	Assignment/ work book assignments & viva	Total
Best Two out of Three CTs					
10	10	10	10	10	40

Evaluation Dissertations/Project Reports:

Internal	External	Total
100	100	200

Duration of Examinations:



STUDY & EVALUATION SCHEME

FIRST SEMESTER

Sl. No.	Course Titles	Periods			Credit	Evaluation Scheme		
		L	T	P		Internal	External	Total
MCO101	Visual & Applied Optics	4	-	-	4	40	60	100
MCO102	Epidemiology & Community Eye care	4	-	-	4	40	60	100
MCO103	Research Methodology & Biostatistics	4			4	40	60	100
MCO104	Ocular Diseases and Diagnostics I	6			6	40	60	100
MCO151	Visual & Applied Optics Lab			2	1	50	50	100
MCO152	Ocular Diseases and Diagnostics Lab	-	-	2	1	50	50	100
MCO153	Clinic Posting (General)			12	6	50	50	100
TOTAL		18		16	26	310	390	700

Note: Two hour per week is designated for library.

SECOND SEMESTER

Sl. No.	Course Titles	Periods			Credit	Evaluation Scheme		
		L	T	P		Internal	External	Total
MCO201	Ocular Diseases and Diagnostics II	4	-	-	4	40	60	100
MCO202	Advanced Contact lens I	4	-	-	4	40	60	100
MCO203	Pediatric Optometry & Binocular vision	4	-	-	4	40	60	100
MCO204	Low Vision and Geriatric optometry	4	-	-	4	40	60	100
MCO251	Ocular Diseases and Diagnostics II Lab	-	-	2	1	50	50	100
MCO252	Advanced Contact lens I- Lab	-	-	2	1	50	50	100
MCO253	Pediatric Optometry & Binocular vision Lab			2	1	50	50	100
MCO254	Low Vision and Geriatric optometry Lab			2	1	50	50	100
MCO255	Clinic Posting (General)			12	6	50	50	100
TOTAL		16	20	26	270	490	900	



THIRD SEMESTER

Sl. No.	Course Titles	Periods			Credit	Evaluation Scheme		
		L	T	P		Internal	External	Total
MCO301	Advanced contact lens II	5	-	-	5	40	60	100
MCO302	Low vision care and Rehabilitation	4	-	-	4	40	60	100
MCO303	Vision Therapy	6	-	-	6	40	60	100
MCO351	Advanced contact lens II Lab			2	1	50	50	100
MCO352	Low vision care and rehabilitation Lab			2	1	50	50	100
MCO353	Vision Therapy Lab	-	-	2	1	50	50	100
MCO354	Clinic Posting			12	6	50	50	100
TOTAL		15		18	24	320	380	700
Note: Two hours per week are designated for seminar and one hour per week is designated for library.								

FOURTH SEMESTER

Sl. No.	Course Titles	Periods			Credit	Evaluation Scheme		
		L	T	P		Internal	External	Total
MCO 401	Education and Teaching Methodology	4	-	-	4	40	60	100
MCO 402	Professional Practice management	4	-	-	4	40	60	100
MCO 451	Education and Teaching-Methodology Lab	-	-	2	1	50	50	100
MCO 452	Research Project (Dissertation)	-	-	24	12	100	100	200
TOTAL		8		26	21	230	270	500
Note: Two hour per week is designated for library.								



Study & Evaluation Scheme Of Master of Science in Optometry (M.Sc in Optometry)

[Applicable w.e.f. Academic Session - 2019-20 till revised]

[As per CBCS guidelines given by UGC]



TEERTHANKER MAHAVEER UNIVERSITY

N.H.-24, Delhi Road, Moradabad, Uttar Pradesh-

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M.Sc. in Optometry as per CBCS Syllabus (w.e.f. 2019-20)





TEERTHANKER MAHAVEER UNIVERSITY
(Established under Govt. of U.P. Act No. 30, 2008)
Delhi Road, Bagarpur, Moradabad (U.P.)

<u>Study & Evaluation Scheme</u>	
<u>SUMMARY</u>	
Institute Name	Teerthanker Mahaveer University, College of Paramedical Sciences, Delhi Road, Moradabad
Programme	Master of science in Optometry (M.Sc. in Optometry)
Duration	Two Year Full time (4 semesters)
Medium	English
Minimum Required Attendance	75%
<u>Credits</u>	
Maximum Credits	97

Eligibility for admissions:

A candidate seeking to take admission in M. Sc.in Optometry Programme must have passed bachelors degree of total 4 years duration in Optometry with one year of internship (included in 4 year only) recognized as equivalent by Teerthanker Mahaveer University, with not less than 50 % marks in aggregate.

Selection of eligible candidates:

Selection to the M. Sc.in Optometry Programme shall be on the basis of performance in written exam or interview conducted by Teerthanker Mahaveer University. Medical fitness certificate needs to be submitted by the candidate on the day of Admission.


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11.69") and bound properly. Spiral binding should be avoided. A declaration by the candidate for having done the work should also be included, and the guide, head of the department and head of the institution shall certify the dissertation/ research project.

Four copies of Dissertation/ research project shall be submitted to the university, through proper channel, along with a soft copy (CD).

It shall be assessed by two examiners appointed by the university, one internal and one external. If there are corrections in the dissertation / research project suggested by the examiner(s), the candidate may make such corrections and may be allowed to re-submit in time.

Msc in Optometry: Two Years (4 -Semester) CBCS Programme			
Basic Structure: Distribution of Courses			
S.No.	Type of Course	Credit Hours	Total Credits
1	Discipline Specific Course (DSC)	6 Courses of 4 Credit (Total Credit Hrs. 6x4) = 24	41
		1 Course of 5 Credit (Total Credit Hrs. 1x5) = 5	
		2 Courses of 6Credit (Total Credit Hrs. 2x6) = 12	
2	Skill-Enhancement Course (SEC)	10 Courses of 1 Credit (Total Credit Hrs. 10x1) = 10	40
		3 Courses of 6 Credit (Total Credit Hrs. 3x6) = 18	
		1 Course of 12 Credit (Total Credit Hrs. 1x12) = 12	
3	Core Course (CC)	3 Courses of 4 Credit (Total Credit Hrs. 3x4) = 12	12
4	Compulsory Specified Course (CSC)	1 Course of 4 Credit (Total Credit Hrs.1X4) =4	4
TOTAL CREDITS			97

Contact hours include work related to Lecture, Tutorial and Practical (LTP), where our institution will have flexibility to decide course wise requirements.

E. CHOICE BASED CREDIT SYSTEM (CBCS)

Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve his target number of credits as specified by the UGC and adopted by our University.

The following is the course module designed for the Msc in Optometry programme:

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- ✓ **Discipline Specific Course (DSC):** Discipline Specific courses of Msc in Optometry programme will provide a holistic approach to clinical or practical education, giving students an overview of the field, a basis to build and specialize upon. These courses are the strong foundation to establish Optometry knowledge and provide broad multi-disciplined knowledge can be studied further in depth during the elective phase.

The Discipline Specific courses will provide more practical-based knowledge, case-based lessons and collaborative learning models. It will train the students to analyze, decide, and lead-rather than merely know-while creating a common student experience that can foster deep understanding, develop decision-making ability and contribute to the hospital and community at large.

A wide range of Discipline Specific courses provides detail knowledge in the Ocular Anatomy & Physiology, Spectacle lenses dispensing, Ocular Diseases, Contact lenses, Binocular Vision, etc.

Department offers Discipline Specific courses from semester-I to Semester III with varying credits depending upon the importance of the course in the field of Optometry as already described in above table.

- ✓ **Core Course (CC):** Core courses of Msc in Optometry programme are compulsory courses that are required to be studied by the students as a core requirement which acts as supporting course for better understanding of the Discipline Specific Course. Department offers Core Courses in Semester I & IV like Epidemiology & Community Eye Care, Education & Teaching Methodology and Professional Practice management.

- ✓ **Skill Enhancement Course (SEC):** This course is designed to provide value-based and/or skill-based knowledge. Department offers SECs from I Semester to IV Semester. Each SEC will carry different credits.

- ✓ **Compulsory Specified Course (CSC):** This is a compulsory course that does not have any choice and will be of 4 credits. Each student of Msc in Optometry programme has to compulsorily pass the CSC course.

F. PROGRAMME SPECIFIC OUTCOMES (PSOS)

The learning and abilities or skills that a student would have developed by the end of Two-year M.Sc. in Optometry programme

PSO1.	Understanding the basic as well as advance concepts & theories related to applied science, ocular anatomy & physiology, Contact lens, Binocular vision, Low vision
PSO2.	Applying the concepts & theories, techniques & Procedures used in optometry.
PSO3.	Applying quality assurance, safety measures and maintenance of ophthalmic instruments




PSO4.	Analyzing eye environmental factors & selecting the relevant optical mode of correction & Evaluating different optical correction technique
PSO6.	Evaluating & determining tools, technique, methods, tests used in optometry
PSO7.	Designing & planning of new techniques, procedure for patient and clinic management.
PSO8.	Designing & planning the latest mode of educating the optometry students

G. Pedagogy & Unique practices adopted: “Pedagogy is the method and practice of teaching, especially for teaching an academic subject or theoretical concept”. In addition to conventional time-tested lecture method, the institute will **emphasize on experiential learning**.

1. Role Play & Simulation: Role-play and simulation are forms of experiential learning. Learners take on different roles, assuming a profile of a character or personality, and interact and participate in diverse and complex learning settings. Role-play and simulation function as learning tools for teams and groups or individuals as they "play" online or face-to-face. They alter the power ratios in teaching and learning relationships between students and educators, as students learn through their explorations and the viewpoints of the character or personality they are articulating in the environment. This student-centered space can enable learner-oriented assessment, where the design of the task is created for active student learning. Therefore, role-play & simulation exercises such as virtual share trading, marketing simulation etc. are being promoted for the practical-based experiential learning of our students.

2. Video Based Learning (VBL) & Learning through Movies (LTM): These days technology has taken a front seat and classrooms are well equipped with equipment and gadgets. Video-based learning has become an indispensable part of learning. Similarly, students can learn various concepts through movies. In fact, many teachers give examples from movies during their discourses. Making students learn few important theoretical concepts through VBL & LTM is a good idea and method. The learning becomes really interesting and easy as videos add life to concepts and make the learning engaging and effective. Therefore, our institute is promoting VBL & LTM, wherever possible.

3. Special Guest Lectures (SGL) & Extra Moral Lectures (EML): Some topics/concepts need extra attention and efforts as they either may be high in difficulty level or requires experts from specific industry/domain to make things/concepts clear for a better understanding from the perspective of the industry. Hence, to cater to the present needs of industry we organize such lectures, as part of lecture-series and invite prominent personalities from academia and industry from time to time to deliver their vital inputs and insights.

4. Special assistance programme for slow learners: Special classes are arranged for slow learners. They are assisted patiently and consistently. Motivation is one of the most essential requirements to help them continue learning. Proper acknowledgement and praise help the overall development of such student.

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Study & Evaluation Scheme

M.Sc in Optometry - I Semester

S.NO.	CATEGORY	COURSE CODE	COURSE NAME	PERIODS			CREDITS	EVALUATION SCHEME		
				L	T	P		INTERNAL	EXTERNAL	TOTAL
1	DSC-1	MCO101	Visual & Applied Optics	4	-	-	4	40	60	100
2	CC-1	MCO102	Epidemiology & Community Eye care	4	-	-	4	40	60	100
3	CSC-1	MCO103	Research Methodology & Biostatistics	4	-	-	4	40	60	100
4	DSC-2	MCO104	Ocular Diseases and Diagnostics I	6	-	-	6	40	60	100
5	SEC-1	MCO151	Visual & Applied Optics Lab	-	-	2	1	50	50	100
6	SEC-2	MCO152	Ocular Diseases and Diagnostics Lab	-	-	2	1	50	50	100
7	SEC-3	MCO153	Clinic Posting (General)	-	-	12	6	50	50	100
Total				18		16	26	310	390	700

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Study & Evaluation Scheme
M.Sc in Optometry - II Semester

S.NO.	CATEGORY	COURSE CODE	COURSE NAME	PERIODS			CREDIT S	EVALUATION SCHEME		
				L	T	P		INTERNAL	EXTERNAL	TOTAL
1	DSC-3	MCO201	Ocular Diseases and Diagnostics II	4	-	-	4	40	60	100
2	DSC -4	MCO202	Advanced Contact lens I	4	-	-	4	40	60	100
3	DSC -5	MCO203	Pediatric Optometry & Binocular vision	4	-	-	4	40	60	100
4	DSC -6	MCO204	Low Vision and Geriatric optometry	4	-	-	4	40	60	100
5	SEC-4	MCO251	Ocular Diseases and Diagnostics II Lab	-	-	2	1	50	50	100
6	SEC-5	MCO252	Advanced Contact lens I Lab	-	-	2	1	50	50	100
7	SEC-6	MCO253	Pediatric Optometry & Binocular vision Lab	-	-	2	1	50	50	100
8	SEC -7	MCO254	Low Vision and Geriatric optometry Lab	-	-	2	1	50	50	100
9	SEC -8	MCO255	Clinic Posting (General)	-	-	12	6	50	50	100
Total				16		20	26	270	490	900

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Study & Evaluation Scheme
M.Sc in Optometry - III Semester

S.NO.	CATEGORY	COURSE CODE	COURSE NAME	PERIODS			CREDITS	EVALUATION SCHEME		
				L	T	P		INTERNAL	EXTERNAL	TOTAL
1	DSC-7	MCO301	Advanced contact lens II	5	-	-	5	40	60	100
2	DSC -8	MCO302	Low vision care and Rehabilitation	4	-	-	4	40	60	100
3	DSC -9	MCO303	Vision Therapy	6	-	-	6	40	60	100
4	SEC-9	MCO351	Advanced contact lens II Lab	-	-	2	1	50	50	100
5	SEC-10	MCO352	Low vision care and rehabilitation Lab	-	-	2	1	50	50	100
6	SEC-11	MCO353	Vision Therapy Lab	-	-	2	1	50	50	100
7	SEC-12	MCO354	Clinic Posting	-	-	12	6	50	50	100
Total				15	-	18	24	320	380	700



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Study & Evaluation Scheme
M.Sc in Optometry - IV Semester

S.NO.	CATEGORY	COURSE CODE	COURSE NAME	PERIODS			CREDITS	EVALUATION SCHEME		
				L	T	P		INTERNAL	EXTERNAL	TOTAL
1	CC-2	MCO 401	Education and Teaching Methodology	4	-	-	4	40	60	100
2	CC-3	MCO 402	Professional Practice management	4	-	-	4	40	60	100
3	SEC-13	MCO 451	Education and Teaching Methodology Lab	-	-	2	1	50	50	100
4	SEC-14	MCO 452	Research Project (Dissertation)	-	-	24	12	50	50	100
Total				8		26	21	180	220	400

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