



**INTEGRAL UNIVERSITY, LUCKNOW**  
**INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH**

**DEPARTMENT OF PARAMEDICAL SCIENCES**

**BACHELOR OF OPTOMETRY  
(B.OPTOM)**

**SYLLABUS**

**YEAR/ SEMESTER: IV/VII**



Integral University, Lucknow  
Department of Paramedical Sciences  
Study and Evaluation Scheme

Program: B. OPTOM

Semester-VII

S. N.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
<b>THEORIES</b>													
1	BO401	Internship-I	Core	0	0	0	30	30	60	40	100	20	20
<b>Total</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>30</b>	<b>60</b>	<b>40</b>	<b>100</b>	<b>20</b>	<b>20</b>

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goal (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
<b>THEORIES</b>											
1	BO401	Internship-I	Core	√	√	√			√	√	3,4

**L:** Lecture      **T:** Tutorials      **P:** Practical      **CT:** Class Test      **TA:** Teacher Assessment      **ESE:** End Semester Examination,  
 AE= Ability enhancement, DSE- Discipline Specific Elective, **Sessional Total:** Class Test + Teacher Assessment      **Subject Total:** Sessional Total + End Semester Examination (ESE)

<b>Effective from Session: 2019-20</b>							
<b>Course Code</b>	<b>BO401</b>	<b>Title of the Course</b>	<b>INTERNSHIP-I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>IV</b>	<b>Semester</b>	<b>VII</b>				<b>20</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>							

<b>Course Outcomes</b>	
<b>CO1</b>	To demonstrate clinical competence through critical reflection over a broad range of patient experiences
<b>CO2</b>	To select, perform and interpret appropriate clinical Eye I tests as part of a targeted, accurate and timely clinical examination of the Ocular System.
<b>CO3</b>	To identify and evaluate resources that relate to the ethical, moral and legal foundations of Eye care system.
<b>CO4</b>	To articulate how physical, social and cultural background impact a patient's likelihood of developing a vision disorder or diseases.
<b>CO5</b>	To apply Clinical Expertise in Comprehensive Optometry

<b>Unit No.</b>	<b>Title of the Unit</b>	<b>Content of Unit</b>	<b>Contact Hrs.</b>	<b>Mapped CO</b>
1	<b>Comprehensive Optometry</b>	The students are required to do internship for one full year (i.e., 7 <sup>th</sup> and 8 <sup>th</sup> semester) either from the Department of Ophthalmology, Integral Institute of Medical Sciences & Research or from any other recognized eye institute/hospital after getting a NOC from the Department of Paramedical Sciences, IIAHSR		CO 1-5

<b>Reference Books:</b>	
<b>e-Learning Source:</b>	
1.	Gunter K. Von Noorden: BURIAN- VON NOORDEN'S Binocular vision and ocular motility theory and management of strabismus, Missouri, Second edition, 1980, C. V. Mosby Company.
2.	Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd

<b>Course Articulation Matrix: (Mapping of COs with POs and PSOs)</b>																
<b>PO-PSO CO</b>	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1
<b>CO2</b>	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1
<b>CO3</b>	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1
<b>CO4</b>	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1
<b>CO5</b>	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation  
Attributes & SDGs

<b>Course Code</b>	<b>Course Title</b>	<b>Attributes</b>							<b>SDGs No.</b>
BO401	INTERNSHIP-I	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√			√	√	



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**(B.OPTOM)**

**SYLLABUS**

**YEAR/ SEMESTER: IV/VIII**



Integral University, Lucknow  
Department of Paramedical Sciences  
Study and Evaluation Scheme

Program: B. OPTOM

Semester-VIII

S. N.	Course code	Course Title	Type of Paper	Period Per hr./week/Sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
<b>THEORIES</b>													
1	BO402	Internship-II	Core	0	0	0	30	30	60	40	100	10	10
2	BO403	Research Project & Viva	Core	0	0	0	30	30	60	40	100	10	10
<b>Total:</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>60</b>	<b>120</b>	<b>80</b>	<b>200</b>	<b>20</b>	<b>20</b>

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goal (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
<b>THEORIES</b>											
1	BO402	Internship-II	Core	√	√	√	√		√	√	3,4
2	BO403	Research Project & Viva	Core	√	√	√	√		√	√	3,4

**L:** Lecture      **T:** Tutorials      **P:** Practical      **CT:** Class Test      **TA:** Teacher Assessment      **ESE:** End Semester Examination,  
**AE=** Ability enhancement, **DSE-** Discipline Specific Elective, **Sessional Total:** Class Test + Teacher Assessment      **Subject Total:** Sessional Total + End Semester Examination (ESE)



## Integral University, Lucknow

<b>Effective from Session: 2019-20</b>							
<b>Course Code</b>	<b>BO402</b>	<b>Title of the Course</b>	<b>INTERNSHIP-II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>IV</b>	<b>Semester</b>	<b>VIII</b>				<b>10</b>
<b>Pre-Requisite</b>	<b>Nil</b>	<b>Co-requisite</b>	<b>Nil</b>				
<b>Course Objectives</b>							

Course Outcomes	
<b>CO1</b>	To demonstrate clinical competence through critical reflection over a broad range of patient experiences
<b>CO2</b>	To select, perform and interpret appropriate clinical Eye I tests as part of a targeted, accurate and timely clinical examination of the Ocular System.
<b>CO3</b>	To identify and evaluate resources that relate to the ethical, moral and legal foundations of Eye care system.
<b>CO4</b>	To articulate how physical, social and cultural background impact a patient's likelihood of developing a vision disorder or diseases.
<b>CO5</b>	To apply clinical expertise in specialized eye care practices.

Unit No.	Title of the Unit	Content Of Unit	Contact Hrs.	Mapped CO
1	<b>Comprehensive &amp; Specialized Optometry.</b>	<p>Internship is a phase of training where a student is expected to conduct actual practice of clinical optometry and acquire skills under supervision so that he/she may become capable of functioning independently.</p> <p>The students are required to undergo the Internship of One year; therefore, they will continue the internship in the 8<sup>th</sup> Semester.</p>		CO1-5

Reference Books:	
1.	Gunter K. Von Noorden: BURIAN- VON NOORDEN'S Binocular vision and ocular motility theory and management of strabismus, Missouri, Second edition, 1980, C. V. Mosby Company.
2.	Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd
3.	IACLE Contact lens modules.
e-Learning Source:	
1.	<a href="https://www.youtube.com/watch?v=UtivXLO7c9A&amp;list=PLR3kIPR1Qzzky45nZ4_1HIUCbjVNU0iZx">https://www.youtube.com/watch?v=UtivXLO7c9A&amp;list=PLR3kIPR1Qzzky45nZ4_1HIUCbjVNU0iZx</a>
2.	<a href="https://www.youtube.com/watch?v=txIS0N0I9xU&amp;list=PLEIbY8S8u_DK7i4Fj6Hgq8sn_142k9H1L">https://www.youtube.com/watch?v=txIS0N0I9xU&amp;list=PLEIbY8S8u_DK7i4Fj6Hgq8sn_142k9H1L</a>
3.	<a href="https://www.youtube.com/watch?v=tr8M7jSIYm4">https://www.youtube.com/watch?v=tr8M7jSIYm4</a>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
	<b>CO1</b>	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-
<b>CO2</b>	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1
<b>CO3</b>	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1
<b>CO4</b>	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1
<b>CO5</b>	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1

**1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**  
Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.	
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics		
<b>BO402</b>	INTERNSHIP-II	√	√	√				√	√	<b>3,4</b>



Effective from Session: 2023-24

Course Code	BO403	Title of the Course	RESEARCH PROJECT & VIVA	L	T	P	C
Year	IV	Semester	VIII				10
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives							

**Course Outcomes**

CO1	Apply the principles of research and biostatistics to health practice including the design and implementation of health-related research studies.
CO2	Plan and execute a research study, including clinical trials.
CO3	Use / organize bio-statistical analysis using computers and software's and prepare reports.
CO4	Critically evaluate research activities.
CO5	To Submit the final Research Prpject related to Optometry.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Research Project	The students are required to do Research project under the guidance of two supervisors, One Internal Guide allotted from within the faculty member and One External Guide from the hospital/Eye Institute who can be a senior Optometrist or Ophthalmologist. The Topic of the Project was to be chosen at the starting of the 7 <sup>th</sup> Semester and the student will keep working on it.  However, the Final Project Report will be submitted before the conduction of the 8 <sup>th</sup> semester ESE.		CO1-5

**Reference Books:**

1. Statistical Methods by S.P. Gupta.
2. Methods in biostatistics for medical students by B.K.Mahajan.
3. RPG Biostatistics by Himanshu Tyagi.

**e-Learning Source:**

4. [https://www.youtube.com/watch?v=UtivXLO7c9A&list=PLR3kIPR1Qzzky45nZ4\\_1HIUCbjVNU0iZx](https://www.youtube.com/watch?v=UtivXLO7c9A&list=PLR3kIPR1Qzzky45nZ4_1HIUCbjVNU0iZx)
5. [https://www.youtube.com/watch?v=txISON0I9xU&list=PLEIbY8S8u\\_DK7i4Fj6Hgq8sn\\_142k9H1L](https://www.youtube.com/watch?v=txISON0I9xU&list=PLEIbY8S8u_DK7i4Fj6Hgq8sn_142k9H1L)

**Course Articulation Matrix: (Mapping of COs with POs and PSOs)**

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1
CO5	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation  
Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
BO403	RESEARCH PROJECT & VIVA	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√			√	√	