Babu Banarasi Das University, Lucknow
School of Allied Health Sciences
School Code: 13
University Branch Code: 17
Evaluation Scheme (w.e.f. – 2025-26)

BACHELOR OF OPTOMETRY

SETS

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 1	BOP 101T	Anatomy & Physiology and Optometry Basics	DSC	3	1	0	4	40	60	100
	BOP 102T	Vital Signs and Management of Medical Emergencies	DSC	2	0	0	2	40	60	100
	BOP 103T	Healthcare Delivery System	MD	2	1	0	3	40	60	100
	BOP 104T	Digital Literacy	AEC	2	0	0	2	60	40	100
	BOP 105T	Communicative English	SEC	2	1	0	3	60	40	100
	BOP 106T	Environment and Ecological Sustainability	VAC	2	1	0	3	40	60	100
	BOP 101P	Anatomy & Physiology and Optometry Basics Lab	DSC	0	0	6	3	60	40	100
	BOP 102P	Vital Signs and Management of Medical Emergencies Lab	DSC	0	0	4	2	60	40	100
		Total		**13**	**4**	**10**	**22**	**400**	**400**	**800**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 2	BOP 201T	Ocular Anatomy & Physiology and Optics I	DSC	3	1	0	4	40	60	100
	BOP 202T	Infection Control and Biomedical Waste Management	DSC	2	0	0	2	40	60	100
	BOP 203T	Hospital Services	MD	2	1	0	3	40	60	100
	BOP 204T	Business Communication	AEC	2	1	0	3	60	40	100
	BOP 205T	Job Ready Skills I	SEC	2	0	0	2	60	40	100
	BOP 206T	AI Tools	VAC	2	1	0	3	40	60	100
	BOP 201P	Ocular Anatomy & Physiology and Optics I Lab	DSC	0	0	6	3	60	40	100
	BOP 202P	Infection Control and Biomedical Waste Management Lab	DSC	0	0	4	2	60	40	100
		Total		**13**	**4**	**10**	**22**	**400**	**400**	**800**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 3	BOP 301T	Ocular Anatomy & Physiology and Optics II	DSC	3	1	0	4	40	60	100
	BOP 302T	Low Vision Aids	DSC	2	1	0	3	40	60	100
	BOP 303T	Medical Law and Ethics	MD	2	1	0	3	40	60	100
	BOP 304T	Sales and Marketing	AEC	2	1	0	3	60	40	100
	BOP 305T	Job Ready Skills II	SEC	2	0	0	2	60	40	100
	BOP 301P	Ocular Anatomy & Physiology and Optics II Lab	DSC	0	0	8	4	60	40	100
	BOP 302P	Low Vision Aid Lab	DSC	0	0	6	3	60	40	100
		Total		**11**	**4**	**14**	**22**	**360**	**340**	**700**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 4	BOP 401T	Specialised Optometry I	DSC	3	1	0	4	40	60	100
	BOP 402T	Specialised Optometry II	DSC	3	1	0	4	40	60	100
	BOP 403T	Diseases	DSC	2	2	0	4	40	60	100
	BOP 404T	Visual Aids	DSC	2	0	0	2	40	60	100
	BOP 405T	Leadership Skills for Business Success	AEC	2	0	0	2	60	40	100
	BOP 401P	Specialised Optometry I Lab	DSC	0	0	8	4	60	40	100
	BOP 402P	Specialised Optometry II Lab	DSC	0	0	4	2	60	40	100
		Total		**12**	**4**	**12**	**22**	**340**	**360**	**700**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 5	BOP 501P	Off Campus Internship I	DSC	0	0	24	12	60	40	100
	BOP 502P	On the Job Training I	DSC	0	0	12	6	60	40	100
	BOP 503P	Summer Internship	SI	0	0	4	2	60	40	100
		Total		**0**	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 6	BOP 601P	Off Campus Internship II	DSC	0	0	24	12	60	40	100
	BOP 602P	On the Job Training II	DSC	0	0	12	6	60	40	100
	BOP 603P	Internship	SEC	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 7	BOP 701P	Off Campus Internship III	DSC	0	0	24	12	60	40	100
	BOP 702P	On the Job Training III	DSC	0	0	16	8	60	40	100
		Total		**0**	**0**	**40**	**20**	**120**	**80**	**200**

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 8	BOP 801P	Off Campus Internship IV	DSC	0	0	16	8	60	40	100
	BOP 802P	Off Campus Internship V	DSC/RP	0	0	8	4	60	40	100
	BOP 803P	Off Campus Internship VI	DSC/RP	0	0	8	4	60	40	100
	BOP 804P	Off Campus Internship VII	DSC/RP	0	0	8	4	60	40	100
		Total		**0**	**0**	**40**	**20**	**240**	**160**	**400**

LEVEL 6 (Bachelor)
1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2
3rd Classroom Semester- Set 3
4th Classroom Semester- Set 4

1st Internship Semester- Set 5
2nd Internship Semester- Set 6
3rd Internship Semester- Set 7
4th Internship Semester- Set 8

LEVEL 5 (Diploma)
1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2

1st Internship Semester- Set 5
2nd Internship Semester- Set 6

LEVEL 5.5 (B.Sc.)
1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2
3rd Classroom Semester- Set 3

1st Internship Semester- Set 5
2nd Internship Semester- Set 6
3rd Internship Semester- Set 7

LEVEL 4.5 (Certificate)
1st Classroom Semester- Set 1

1st Internship Semester- Set 5

BACHELOR OF OPTOMETRY

Students choosing the level 4.5 exit will study set 1 in semester I and set 5 in semester II

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-I (The student will study set 1)	BOP 101T	Anatomy & Physiology and Optometry Basics	DSC	3	1	0	4	40	60	100
	BOP 102T	Vital Signs and Management of Medical Emergencies	DSC	2	0	0	2	40	60	100
	BOP 103T	Healthcare Delivery System	MD	2	1	0	3	40	60	100
	BOP 104T	Digital Literacy	AEC	2	0	0	2	60	40	100
	BOP 105T	Communicative English	SEC	2	1	0	3	60	40	100
	BOP 106T	Environment and Ecological Sustainability	VAC	2	1	0	3	40	60	100
	BOP 101P	Anatomy & Physiology and Optometry Basics Lab	DSC	0	0	6	3	60	40	100
	BOP 102P	Vital Signs and Management of Medical Emergencies Lab	DSC	0	0	4	2	60	40	100
		Total		**13**	**4**	**10**	**22**	**400**	**400**	**800**

1. An exit request for UG certificate can be raised maximum before the start of Semester II. In case a student raises a request for exit after the start of Semester II, they can only opt for the next available exit stage i.e. 2 year UG Diploma.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student.
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a UG Certificate, after Semester I, then s/he has to complete the required credits in the internship semesters as given below.

SEMESTER -II (Student will study set 5)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOP 501P	Off Campus Internship I	DSC	0	0	24	12	60	40	100
	BOP 502P	On the Job Training I	DSC	0	0	12	6	60	40	100
	BOP 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

Students exiting the programme after securing 40 credits will be awarded a UG Certificate (Ophthalmic Techniques), provided they secure 4 credits in work-based vocational courses offered during the summer term or an internship / Apprenticeship in addition to 6 credits from skill-based courses earned during the first and second semester.

Students choosing the level 5 exit will study set 1 in semester I, set 2 in semester II, set 5 in semester III, and set 6 in semester IV
If a student wants to continue after Semester I, then this SET will be followed for Semester II.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-II (Student will study set 2)	BOP 201T	Ocular Anatomy & Physiology and Optics I	DSC	3	1	0	4	40	60	100
	BOP 202T	Infection Control and Biomedical Waste Management	DSC	2	0	0	2	40	60	100
	BOP 203T	Hospital Services	MD	2	1	0	3	40	60	100
	BOP 204T	Business Communication	AEC	2	1	0	3	60	40	100
	BOP 205T	Job Ready Skills I	SEC	2	0	0	2	60	40	100
	BOP 206T	AI Tools	VAC	2	1	0	3	40	60	100
	BOP 201P	Ocular Anatomy & Physiology and Optics I Lab	DSC	0	0	6	3	60	40	100
	BOP 202P	Infection Control and Biomedical Waste Management Lab	DSC	0	0	4	2	60	40	100
				13	**4**	**10**	**22**	**400**	**400**	**800**

1. An exit request for a UG diploma can be raised maximum before the start of Semester III. In case a student raises a request for exit after the start of Semester III, they can only opt for the next available exit stage i.e. 3 year UG Degree.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student.
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a UG Diploma after Semester II, then s/he has to complete the required credits in the internship semesters as given below.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-III (Student will study set 5)	BOP 501P	Off Campus Internship I	DSC	0	0	24	12	60	40	100
	BOP 502P	On the Job Training I	DSC	0	0	12	6	60	40	100
	BOP 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-IV (Student will study set 6)	BOP 601P	Off Campus Internship II	DSC	0	0	24	12	60	40	100
	BOP 602P	On the Job Training II	DSC	0	0	12	6	60	40	100
	BOP 603P	Internship	SEC	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

Students exiting the programme after securing 80 credits will be awarded a UG Diploma (Ophthalmic Techniques), provided they secure an additional 4 credits in skill-based vocational courses offered during the first year or second year summer term. If a student wants to continue after Semester II, then this SET will be followed for Semester III.

Students choosing the level 5.5 exit will study set 1 in semester 1, set 2 in semester II, set 3 in semester III, set 5 in semester IV, set 6 in semester V, and set 7 in semester VI
If a student wants to continue after Semester II, then this SET will be followed for Semester III.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER -III (Student will study set 3)	BOP 301T	Ocular Anatomy & Physiology and Optics II	DSC	3	1	0	4	40	60	100
	BOP 302T	Low Vision Aids	DSC	2	1	0	3	40	60	100
	BOP 303T	Medical Law and Ethics	MD	2	1	0	3	40	60	100
	BOP 304T	Sales and Marketing	AEC	2	1	0	3	60	40	100
	BOP 305T	Job Ready Skills II	SEC	2	0	0	2	60	40	100
	BOP 301P	Ocular Anatomy & Physiology and Optics II Lab	DSC	0	0	8	4	60	40	100
	BOP 302P	Low Vision Aid Lab	DSC	0	0	6	3	60	40	100
				11	**4**	**14**	**22**	**360**	**340**	**700**

1. An exit request for 3 year UG degree can be raised maximum before the start of Semester IV. In case a student raises a request for exit after the start of Semester IV, they can only opt for the next available exit stage i.e. 4 year UG degree with honors.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student.
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a 3 year UG Degree, after Semester III, then s/he has to complete the required credits in the internship semesters as given below.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - IV (Student will study set 5)	BOP 501P	Off Campus Internship I	DSC	0	0	24	12	60	40	100
	BOP 502P	On the Job Training I	DSC	0	0	12	6	60	40	100
	BOP 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - V (Student will study set 6)	BOP 601P	Off Campus Internship II	DSC	0	0	24	12	60	40	100
	BOP 602P	On the Job Training II	DSC	0	0	12	6	60	40	100
	BOP 603P	Internship	SEC	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

SEMESTER - VI (Student will study set 7)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOP 701P	Off Campus Internship III	DSC	0	0	24	12	60	40	100
	BOP 702P	On the Job Training III	DSC	0	0	16	8	60	40	100
				0	**0**	**40**	**20**	**120**	**80**	**200**

Students who want to undertake a 3-year UG programme will be awarded a Bachelor of Science (Ophthalmic Techniques) degree upon securing 120 credits

Students choosing the level 6 exit will study set 1 in semester I, set 2 in semester II, set 3 in semester III, set 4 in semester IV, set 5 in semester V, set 6 in semester VI, set 7 in semester VII, and set 8 in semester VIII

If a student wants to continue after Semester III, then this SET will be followed for the remaining semesters.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - IV (Student will study set 4)	BOP 401T	Specialised Optometry I	DSC	3	1	0	4	40	60	100
	BOP 402T	Specialised Optometry II	DSC	3	1	0	4	40	60	100
	BOP 403T	Diseases	DSC	2	2	0	4	40	60	100
	BOP 404T	Visual Aids	DSC	2	0	0	2	40	60	100
	BOP 405T	Leadership Skills for Business Success	AEC	2	0	0	2	60	40	100
	BOP 401P	Specialised Optometry I Lab	DSC	0	0	8	4	60	40	100
	BOP 402P	Specialised Optometry II Lab	DSC	0	0	4	2	60	40	100
				12	**4**	**12**	**22**	**340**	**360**	**700**

1. Students have to pass all the previous exams in order to be eligible for the internship semester.
2. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER -V (Student will study set 5)	BOP 501P	Off Campus Internship I	DSC	0	0	24	12	60	40	100
	BOP 502P	On the Job Training I	DSC	0	0	12	6	60	40	100
	BOP 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - VI (Student will study set 6)	BOP 601P	Off Campus Internship II	DSC	0	0	24	12	60	40	100
	BOP 602P	On the Job Training II	DSC	0	0	12	6	60	40	100
	BOP 603P	Internship	SEC	0	0	4	2	60	40	100
				0	**0**	**40**	**20**	**180**	**120**	**300**

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - VII (Student will study set 7)	BOP 701P	Off Campus Internship III	DSC	0	0	24	12	60	40	100
	BOP 702P	On the Job Training III	DSC	0	0	16	8	60	40	100
				0	**0**	**40**	**20**	**120**	**80**	**200**

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - VIII (The student will study set 8)	BOP 801P	Off Campus Internship IV	DSC	0	0	16	8	60	40	100
	BOP 802P	Off Campus Internship V	DSC/RP	0	0	8	4	60	40	100
	BOP 803P	Off Campus Internship VI	DSC/RP	0	0	8	4	60	40	100
	BOP 804P	Off Campus Internship VII	DSC/RP	0	0	8	4	60	40	100
				0	**0**	**40**	**20**	**240**	**160**	**400**

Students will be awarded a Bachelor of Optometry degree provided they secure 160 credits

Course Type Abbreviations:
DSC: Discipline Specific Core/Major Courses
MD: Multi-Disciplinary Courses
AEC: Ability Enhancement Courses
SEC: Skill Enhancement Courses
VAC: Common Values Added Courses
SI: Summer Internship
RP: Research Project
CIA: Continuous Internal Assessment
ESE: End Semester Examination
L: Lecture
T: Tutorial
P: Practical

Babu Banarasi Das University, Lucknow
School of Allied Health Sciences
School Code: 13
University Branch Code: 17
Evaluation Scheme (w.e.f. – 2025-26)

PROGRAM OUTCOMES

PO1: Demonstrate comprehensive understanding of human anatomy, physiology, ocular structure, and medical terminology to facilitate effective clinical decision-making and interprofessional communication.

PO2: Apply principles of pharmacology, microbiology, and pathology in the diagnosis and management of ocular diseases and related systemic conditions.

PO3: Identify and manage refractive errors through precise optometric evaluation, including visual acuity testing, retinoscopy, and subjective refraction techniques.

PO4: Perform thorough ocular health assessments using specialized instruments to detect and monitor anterior and posterior segment disorders.

PO5: Select and fit appropriate corrective devices such as spectacles, contact lenses, and low vision aids based on individual patient needs.

PO6: Maintain high standards of infection prevention, sterilization, and patient safety protocols within clinical environments.

PO7: Recognize and respond to ocular and systemic medical emergencies with appropriate first aid and referral practices.

PO8: Exhibit ethical behavior, empathy, and professionalism in patient interactions and healthcare practice.

PO9: Communicate effectively with patients, caregivers, and other healthcare professionals using verbal, non-verbal, and written methods.

PO10: Use information technology, digital optometric tools, and record-keeping systems to enhance diagnostic accuracy and treatment planning.

PO11: Demonstrate awareness of environmental, social, and legal aspects affecting eye care services and promote preventive ophthalmic health strategies.

PO12: Engage in self-directed learning, research, and continuous professional development to stay updated with advances in optometry and visual science.

PROGRAM SPECIFIC OUTCOMES

PSO1: Apply foundational knowledge of ocular anatomy, physiology, pathology, and visual sciences to assess, identify, and assist in the management of refractive errors, visual impairments, and ocular health conditions using appropriate diagnostic tools and techniques.

PSO2:Demonstrate patient-centered optometric care by performing vision assessments, fitting corrective lenses, managing binocular vision and low vision cases, while upholding ethical standards, effective communication, and interdisciplinary collaboration.

Program	Bachelor of Optometry				
Year	I	Semester	I		
Course Name	Anatomy & Physiology and Optometry Basics				
Code	BOP 101T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objectives	Understand the anatomical planes and positions used to describe the human body, and learn the foundational structure and usage of medical terminology including prefixes, suffixes, abbreviations, and directional terms. Explore the basics of human anatomy and physiology Explain the nature, properties, and reflection of light relevant to the eye and vision. Describe refraction, mirrors, lenses, and image formation with emphasis on lens power.				

Course Outcomes	
CO1	Describe human body structures using anatomical planes, positions, and appropriate medical terminology.
CO2	Explain the structure and functions of cells, tissues, organs, and organ systems, and explain their interrelationships and roles in maintaining homeostasis and overall health.
CO3	Explain the fundamental properties of light and its interaction with surfaces through reflection
CO4	Understand the behavior of light as it interacts with transparent and reflective surfaces, including refraction, mirrors, and lenses.

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Anatomical Planes, Anatomical Positions and Medical Terminology:** Sagittal plane, Frontal plane, Transverse plane, Supine position, Prone position, Parts of medical terminology, Rules for constructing and interpreting medical terms, Terminology related to body parts, Regional terms of the human body, Directional terms, Abbreviations & symbols, Prefixes, Suffixes	15 Hours	CO1

2	**Anatomy and Physiology:** Cell, Tissue, Organ, Organ system, Digestive system, Respiratory system, Integumentary system, Circulatory system, Lymphatic System, Muscular system, Skeletal System, Urinary System, Reproductive System - Male and female, Endocrine system, Nervous System, Body fluids	15 Hours	CO2
3	**Basics of Light and Its Behavior:** Nature of light, Properties of light, Electromagnetic spectrum, Visible light and the eye, Reflection of light, Laws of reflection	15 Hours	CO3
4	**Refraction, Mirrors, and Lenses:** Refraction through a glass slab, Laws of refraction, Refractive index, Optical density, Plane mirrors, Spherical mirrors and image formation, Spherical lenses, image formation, and lens power	15 Hours	CO4

Suggested Readings

1. Davi-Ellen Chabner, Medical Terminology: A Short Course, Saunders, 2017
2. Barbara Janson Cohen, Shirley A Jone, Medical Terminology an Illustrated Guide, Ninth edition
3. G Deepa, PR Ashalatha, Textbook of Applied Anatomy and Physiology for Nurses, Jaypee Brothers Medical Publishers
4. B.D. Chaurasia, Applied Anatomy and Physiology for BSc Nursing Students, CBS Publishers & Distributors Pvt. Ltd.
5. Archibald Stanley Percival, Geometrical Optics, 2022, Legare Street Press
6. Milton Katz, Introduction To Geometrical Optics, 2002, World Scientific Publishing Co Pvt Ltd

Online Resources

1. https://pubmed.ncbi.nlm.nih.gov/21820700/
2. https://science.nasa.gov/ems/09_visiblelight/
3. https://pmc.ncbi.nlm.nih.gov/articles/PMC8887026/
4. https://louis.pressbooks.pub/medicalterminology/chapter/regional-directional/

Course Articulation Matrix

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

CO4	2	-	3	3	-	-	-	-	-	-	-	2	3	2

Program	Bachelor of Optometry				
Year	I	**Semester**	I		
Course Name	Vital Signs and Management of Medical Emergencies				
Code	BOP 102T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	Explain the concept, types, and normal ranges of vital signs, and demonstrate accurate measurement and interpretation using appropriate clinical methods and equipment. Describe and apply the step-by-step process of administering Cardiopulmonary Resuscitation (CPR) in adults and children, and manage choking incidents effectively through risk identification and appropriate first aid techniques. Provide appropriate first aid for common medical emergencies such as fractures, burns, hemorrhage, stroke, and wounds, ensuring timely and effective pre-hospital care.				
Course Outcomes					
CO1	Understand, measure and interpret the various types of vital signs and their normal ranges along with their clinical significance				
CO2	Perform CPR (Cardiopulmonary resuscitation) in adults and children.				
CO3	Assist in managing medical emergencies, including choking, fractures, burns, hemorrhage, stroke, and wounds.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Vital Signs and its Measurement:** Introduction to vital signs, Types of vital signs, Normal ranges of vital signs, Methods and instruments used to monitor vital signs	10 Hours	CO1
2	**CPR – Adult and Child:** CPR (Cardiopulmonary resuscitation), Indications of CPR, Steps in CPR, The algorithm of Adult CPR, CPR (Cardiopulmonary resuscitation) in Child	10 Hours	CO2

3	**Common Medical Emergencies and its Management** Choking/Foreign body airway obstruction Risk factors of choking, Mechanism of occurrence of choking, Signs of choking, Complications of choking, Choking management, First aid for fractures, Burns management, Haemorrhage management, Stroke management, Wound management	10 Hours	CO3

Suggested Readings

1. Devendra Richhariya, Textbook of Emergency and Trauma Care, Jaypee Brothers Medical Publishers
2. S.P. Gupta & D.K. Gupta, Medical Emergencies in General Practice

Online Resources

1. https://medlineplus.gov
2. https://cpr.heart.org
3. https://www.redcross.org

Course Articulation Matrix														
PO-PSO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	3	2	-	2	-	2	2	-	2	-	2	2	2	2
CO2	-	1	-	-	-	2	3	2	2	-	1	2	1	2
CO3	2	3	-	2	-	3	3	2	2	-	2	2	2	3

Program	Bachelor of Optometry				
Year	I	**Semester**	I		
Course Name	Healthcare Delivery System				
Code	BOP 103T				
Course Type	MD	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Understand the structure of the Indian healthcare delivery system, including its primary, secondary, and tertiary levels, as well as public and private sectors, while gaining knowledge about alternative healthcare systems under AYUSH and the role of hospitals in healthcare delivery. Understand National Health Programs, voluntary agencies, and foundational health concepts, including disease types and hospital roles in healthcare delivery. Comprehend the basic concepts of demography and epidemiology, including population statistics, trends, and principles of disease occurrence and distribution in the Indian context.				
Course Outcomes					
CO1	Describe the structure of the Indian healthcare system including levels of care (primary, secondary, tertiary), and differentiate the roles of public, private, and alternative systems like AYUSH.				
CO2	Explain the objectives of national health programs and voluntary health agencies, and define health and disease along with their determinants and influencing factors.				
CO3	Explain key demographic features of India and basic epidemiological concepts related to public health.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Indian Healthcare Delivery System and Alternative Medicine** Introduction to Indian Health Care Delivery System, Levels of healthcare – Primary, secondary and tertiary levels, Healthcare Sectors - Public sector, Private sector, AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy)	15 Hours	CO1

2	**National Health Programs and Basic Concepts of Health and Disease:** National Health programs, Voluntary health agencies, Basic concept of health, Basic concept of diseases, Health determinants, Types of diseases, Factors influencing health and disease, Hospital as an organization	15 Hours	CO2
3	**Demography and Epidemiology:** Demography of India: Population trends and statistics, Epidemiology: Basic principles, definitions	15 Hours	CO3

Suggested Readings

1. B.M. Sakharkar, Principles of Hospital Administration and Planning, Jaypee Brothers Medical Publishers
2. Caroline Currer, Meg Stacey, Concepts of Health, Illness and Disease: A Comparative

Online Resources

1. https://lmis.nihfw.ac.in/local/course/view.php?id=734
2. https://ayush.gov.in/#!/
3. https://www.india.gov.in/ministry-health-and-family-welfare-6
4. https://www.who.int/health-topics

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	-	-	-	2	2	-	3	2	1	2
CO2	2	2	-	-	-	-	-	2	2	-	3	2	1	2
CO3	2	2	-	-	-	-	-	-	1	-	3	2	1	1

Program	Bachelor of Optometry				
Year	I	**Semester**	I		
Course Name	Digital Literacy				
Code	BOP 104T				
Course Type	AEC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	Describe the fundamental components of a computer, basic operations, and perform number system conversions. Explain the principles of computer networks, operating systems, and basic internet concepts. Demonstrate effective use of MS Office tools for word processing, creating spreadsheets, and preparing presentations.				
Course Outcomes					
CO1	Describe basic computer components, operations, and number system conversions.				
CO2	Explain computer networks. operating systems, and internet fundamentals.				
CO3	Utilize MS Office tools effectively for word processing, spreadsheets, and presentations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Introduction to Computer, Operations and Number System** Characteristics of computer, Application of computer, Classification of computer, Types of computers, Generation and organization, Computer languages, Input and output devices, Hardware and software, Computer memory, Number system, Different types of number systems used in computer, Number system conversion	5 Hours	CO1
2	**Computer Network, Operating System and Internet:** Introduction to computer networks, Networking components, Classification and types of networks, Topologies, Communication channels, Client server architecture, LAN concepts Introduction to operating system, Functions of operating system, Types of operating system, Classification of	8 Hours	CO2

	operating system, Components of operating system, Basics of internet		
3	**MS Office:** MS Word, MS Excel, MS PowerPoint	17 Hours	CO3

Suggested Readings

1. The Essentials of Computer Organization and Architecture, Linda Null and Julia Lobur, 2006
2. Understanding Digital Literacies: A Practical Introduction, Rodney H. Jones and Christoph A. Hafner, 2016

Online Resources

1. https://lmis.nihfw.ac.in/local/course/view.php?id=734
2. https://www.researchgate.net/publication/313309097_Operating_Systems#:~:text=An%20operating%20system%20is%20a,physical%20computer%20to%20execute%20applications.
3. https://lincs.ed.gov/sites/default/files/TSTMDigitalLiteracyBrief-508.pdf
4. https://davpgcvns.ac.in/wp-content/uploads/2020/11/Introduction-of-MS-Office-MS-Word-PDF-eng.pdf

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	-	-	-	-	1	3	-	2	1	1
CO2	2	-	-	-	-	-	-	-	1	3	-	2	1	1
CO3	-	-	-	-	-	-	-	-	2	3	-	2	-	2

Program	Bachelor of Optometry				
Year	I	Semester	I		
Course Name	Communicative English				
Code	BOP 105T				
Course Type	SEC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objectives	Understand and differentiate between various types of communication skills, including verbal and non-verbal forms. Demonstrate effective communication using appropriate body language, posture, and context-based interactions. Apply personal hygiene and grooming etiquette to maintain a professional and presentable appearance.				
Course Outcomes					
CO1	Understand and differentiate between various types of communication skills, including verbal and non-verbal forms.				
CO2	Demonstrate effective communication using appropriate body language, posture, and context-based interactions.				
CO3	Apply personal hygiene and grooming etiquette to maintain a professional appearance.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Communication Skills and Types of Communication** Communication skills, Types of communication skills, Oral communication, Written communication, Facial expressions, Tone of voice, Pitch of voice, Body language	15 Hours	CO1
2	**Body Language and Posture:** Components of body language, Components of posture	15 Hours	CO2
3	**Personal Hygiene and Grooming** Importance of personal hygiene, Components of personal hygiene, Grooming etiquette, Do's and Don'ts of Grooming	15 Hours	CO3

Suggested Readings

1. Ahuja, B.N. and S.S. Chopra, Communication, Surjeet Publications, 2006

2. Barun K Mitra, Personality Development and Soft Skills, Oxford University Press, 2016

Online Resources

1. https://www.skillsyouneed.com
2. https://www.mindtools.com
3. https://alison.com

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	2	3	-	1	2	-	2
CO2	-	-	-	-	-	-	-	2	3	-	1	2	-	3
CO3	-	-	-	-	-	2	-	2	2	-	1	1	-	2

Program	Bachelor of Optometry				
Year	I	**Semester**	I		
Course Name	Environment and Ecological Sustainability				
Code	BOP 106T				
Course Type	VAC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	To develop basic knowledge of environment, ecology and ecosystem. To impart basic and key knowledge of atmospheric and global climate change. To develop a knowledge of natural resources, conservation and sustainable use. To recognize knowledge of effects, disturbance, adaptation and development in the ecosystem. To help students to acquire knowledge of pollution and environment protection.				
Course Outcomes					
CO1	Understand atmosphere and climatic change, major biome and ecosystem energy.				
CO2	Be able to conserve natural resources and to learn equity at different levels and benefits of sustainable use of natural resources.				
CO3	Develop improved understanding of environmental pollution, principles and application of environmental management tools including legislation and regulation.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Environment & Ecology** Environment and its segments: Definition, Scope and importance; Atmosphere: Composition, characterization, temperature behaviour and atmospheric stability, climate change; Hydrosphere; Water distribution Lithosphere: Structure and composition. Biosphere Ecology and Ecosystem: Introduction, Concept of an Ecosystem,	15 Hours	CO1

	Structure and function of Ecosystem, Energy flow in an Ecosystem, Food chain and food web, Types of Ecosystem; Ecological Pyramids: Definition, Types of Ecological Pyramid Material cycle: Definition and importance, Nitrogen and carbon cycle.		
2	**Natural Resources:** Natural resources: Definition, types of natural resource Water Resources: Drinking water quality, Water crisis and uses, Water borne and water induced diseases, Fluoride problem in drinking water, Rain water harvesting; Forest Resources: Impact of deforestation on environment Food resources: Crisis, Food adulteration and Hygiene National Policy for Food Security and Managements. Mineral Resources: Use and exploitation of minerals, Impact of mining on environment; Energy resources: Conventional and nonconventional energy sources, Solar energy, Hydropower energy, Hydrogen energy, Biomass-energy Sustainable Development: Definition, sustainable use and conservation of natural resource, Equitable use of Resources, Common Property Resources; Biodiversity and its conservation Environment Management System(EMS): Definition, stages of EMS, cost and benefits ofEMS	15 Hours	CO2
3	**Environmental Pollution and Protection** Environmental Pollution: Definition, Pollutants, sources, causes, effects and control measures of air, water, and soil pollution; Noise: Sources of Noise pollution, Measurement of noise, Noise exposure levels and standards. Impact of noise on human health. Noise control and abatement measures. Current environmental Issues: Population growth, Logistic growth curve equation. Climate change, Global Warming, Acid rain, Ozone layer, Waste Water Treatments. Solid Waste Management, Natural disaster and its management. Environment Protection: Legal aspects of Environment Protection, Environment Protection Act, Air(Prevention and Control of Pollution)Act, Water(Prevention and control of Pollution) Act, Role of NGOs in Environment Protection. Environmental Protection and Sustainability Environmental Education and Awareness.	15 Hours	CO3

Suggested Readings

1. Daniel B. Botkin and Edward A. Keller, Environmental Science: Earth as a Living Planet
2. R. Rajagopalan, Environmental Studies
3. William P. Cunningham and Mary Ann Cunningham, Principles of Environmental Science:

Inquiry and Applications

Online Resources

1. https://pubmed.ncbi.nlm.nih.gov/31506839/
2. https://ecology.edu

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	-	-	-	3	2	-	-
CO2	-	-	-	-	-	-	-	1	-	-	3	2	-	-
CO3	-	-	-	-	-	-	-	1	-	-	3	2	-	-

Program	Bachelor of Optometry				
Year	I	Semester	I		
Course Name	Anatomy & Physiology and Optometry Basics Lab				
Code	BCP 101P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	6	3
Course Objectives	Understand the anatomical planes and positions used to describe the human body, and learn the foundational structure and usage of medical terminology including prefixes, suffixes, abbreviations, and directional terms. Explore the basics of human anatomy and physiology Explain the nature, properties, and reflection of light relevant to the eye and vision. Describe refraction, mirrors, lenses, and image formation with emphasis on lens power.				

Course Outcomes	
CO1	Identify and describe the major structures of the respiratory, circulatory and digestive systems.
CO2	Locate and interpret the functions of organs in the skin, excretory, and nervous systems.
CO3	Demonstrate understanding of muscular system and skeletal anatomy by recognizing various bones and types of joints in the human body.
CO4	Demonstrate and explain the fundamental behaviors of light, including its straight-line travel, reflection, and image formation by mirrors and lenses.

S. No.	List of Experiments	
1	Identification of different parts of the respiratory system	CO1
2	Identification of different parts of the digestive system	CO1
3	Identification of different layers of the skin	CO2
4	Identification of different parts of the circulatory system	CO1
5	Identification of different parts of the excretory system	CO2
6	Identification of different parts of the nervous system	CO2

7	Identification of different bones and joints in the human body	CO3
8	Demonstrate the rectilinear propagation of light.	CO4
9	Explain the reflection of light and its laws.	CO4
10	Illustrate refraction of light through a glass slab.	CO4
11	Analyze image formation by a concave mirror.	CO4
12	Analyze image formation by a convex mirror.	CO4
13	Analyze image formation by a convex lens.	CO4
14	Analyze image formation by a concave lens.	CO4

Suggested Readings

1. Davi-Ellen Chabner, Medical Terminology: A Short Course, Saunders, 2017
2. Barbara Janson Cohen, Shirley A Jone, Medical Terminology an Illustrated Guide, Ninth edition
3. G Deepa, PR Ashalatha, Textbook of Applied Anatomy and Physiology for Nurses, Jaypee Brothers Medical Publishers
4. B.D. Chaurasia, Applied Anatomy and Physiology for BSc Nursing Students, CBS Publishers & Distributors Pvt. Ltd.
5. Archibald Stanley Percival, Geometrical Optics, 2022, Legare Street Press
6. Milton Katz, Introduction To Geometrical Optics, 2002, World Scientific Publishing Co Pte Ltd

Online Resources

1. https://pubmed.ncbi.nlm.nih.gov/21820700/
2. https://science.nasa.gov/ems/09_visiblelight/
3. https://pmc.ncbi.nlm.nih.gov/articles/PMC8887026/
4. https://louis.pressbooks.pub/medicalterminology/chapter/regional-directional/

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	-	-	-	-	-	-	-	-	-	2	3	1
CO2	3	2	-	-	-	-	-	-	-	-	-	2	3	1
CO3	3	1	-	-	-	-	-	-	-	-	-	2	3	1
CO4	2	-	2	2	-	-	-	-	-	-	-	2	3	2

Program	Bachelor of Optometry				
Year	I	Semester	I		
Course Name	Vital Signs and Management of Medical Emergencies Lab				
Code	BOP 102P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objectives	Measure and accurately record vital signs including temperature, respiratory rate, pulse, blood pressure, and oxygen saturation. Demonstrate the correct procedures for performing CPR and defibrillation on adults and children. Apply appropriate first aid techniques to manage emergency situations such as choking effectively.				
Course Outcomes					
CO1	Measure and record vital signs including temperature, respiratory rate, pulse, blood pressure, and oxygen saturation.				
CO2	Demonstrate the correct procedure for CPR and defibrillation in adults and children.				
CO3	Manage emergency scenarios such as choking using appropriate first aid techniques.				

S. No.	List of Experiments	
1	Determination of temperature and respiratory rate	CO1
2	Determination of pulse, blood pressure and oxygen saturation	CO1
3	Perform CPR in adults and children	CO2
4	Perform defibrillation	CO2
5	Perform choking management	CO3

Suggested Readings

1. Devendra Richhariya, Textbook of Emergency and Trauma Care, Jaypee Brothers Medical Publishers
2. S.P. Gupta & D.K. Gupta, Medical Emergencies in General Practice

Online Resources

1. https://medlineplus.gov
2. https://cpr.heart.org
3. https://www.redcross.org

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	2	-	3	2	-	2	-	2	2	2	2
CO2	-	1	-	-	-	2	3	2	2	-	1	2	1	2
CO3	2	2	-	1	-	3	3	2	2	-	2	2	2	3

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Ocular Anatomy & Physiology and Optics I				
Code	BOP 201T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		3	1	0	4
Course Objectives	Understand the structure and common disorders of the eyelids, lacrimal apparatus, conjunctiva, and cornea. Explain eye optics, accommodation, refractive errors, and basic optometric procedures. Identify common ophthalmic drugs, their actions, administration, and prescription essentials and summarize key pathological processes and major ocular/systemic diseases affecting the eye. Understand the fundamentals of microbiology and biochemistry, including clinically important microorganisms, basic laboratory techniques, and the role of nutrients and enzymes in human health.				
Course Outcomes					
CO1	Understand the structure and functions of the eye, its components, and associated disorders to analyze ocular health conditions.				
CO2	Explain optical principles such as accommodation, visual acuity, and schematic eye models, and apply them to clinical scenarios like astigmatism and presbyopia correction.				
CO3	Identify ophthalmic drugs and related pathologies, including systemic conditions affecting the eye, to support safe and effective eye care.				
CO4	Demonstrate understanding of ocular microbiology, biochemistry, and nutrient roles to support the diagnosis and management of infections and systemic influences on eye health.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Ocular Anatomy & Physiology I:** Different components of eye, Eyelids, Disorders of eyelids, Lacrimal apparatus, Conjunctiva, Conjunctivitis	15 Hours	CO1

2	**Basics of Optics:** Accommodation, Optics of the eye, Schematic and reduced eye, Sturm's conoid, Visual angles, Aberrations, Refractive errors and their correction, Anomalies of accommodation, Basic optometric procedures	15 Hours	CO2
3	**General Pathology and Ocular Pathology & Pharmacology:** Overview of general pathology: inflammation, infection, healing, Pathological conditions affecting the eye (glaucoma, cataract, AMD), Systemic diseases with ocular manifestations (diabetes, hypertension), Allergies and immune responses in the eye, Tumors and neoplasms in ocular tissues, Commonly used drugs in eye care, Mechanisms of drug action on the eye, Routes of drug administration in ophthalmology, Side effects and contraindications of ophthalmic drugs, Prescription writing basics for eye condition	15 Hours	CO3
4	**Microbiology and Biochemistry:** Bacteriology, Clinically important bacteria, Mycology, Virulence Factors, Fungal Infection, Protozoa, Viruses, Bacterial growth, Culture media, Bacterial cultivation, Common staining methods, Basic Nutrients, Carbohydrates, Elementary Knowledge of Lipids, Proteins, Clinical Enzymology, Minerals & electrolytes, Importance of minerals & electrolytes	15 Hours	CO4

Suggested Readings

1. Ophthalmic Anatomy and Physiology, R. S. Ghosh, Jaypee Brothers Medical Publishers
2. Essentials of Visual Optics, B. K. Sharma, Jaypee Brothers Medical Publishers
3. Pharmacology for Optometrists N. D. S. Sukhija, Elsevier India
4. Textbook of General and Ocular Pathology, P. S. Tiwari, CBS Publishers & Distributors
5. Microbiology and Biochemistry for Medical Students, S. R. Tiwari, Elsevier India

Online Resources

1. https://www.kenhub.com/en/videos/anatomy-of-lacrimal-apparatus
2. https://www.kenhub.com/en/library/anatomy/conjunctiva
3. https://www.aao.org/eye-health/anatomy/parts-of-eye
4. https://www.ncbi.nlm.nih.gov/books/NBK519502/

Course Articulation Matrix

PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	2	2	-	-	-	1	-	-	-	2	3	2

CO2	2	-	3	2	2	-	-	-	-	1	-	2	3	2
CO3	2	3	2	2	-	2	2	2	-	1	1	2	3	2
CO4	2	3	1	2	-	2	2	2	-	1	2	2	3	2

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Infection Control and Biomedical Waste Management				
Code	BOP 202T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	Apply infection control and proper PPE use. Implement sterilization and biomedical waste protocols. Understand vaccination importance for healthcare workers.				
Course Outcomes					
CO1	Understand different types of infections and apply infection control measures, including proper hand hygiene practices, utilizing PPE.				
CO2	Demonstrate knowledge of sterilization methods and BMW by implementing correct protocols				
CO3	Understand the importance of vaccination for healthcare workers.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Infection & its Types and Infection Control and Prevention** Definition of infection and infectious diseases. Types of infection – Acute, Chronic, Primary, Localized, Systemic, Clinical, Subclinical and Hospital Acquired Infections. Measures of Infection Control, Importance of Hand Hygiene, Hand washing Techniques, Hand Rub Techniques, 5 moments of hand Hygiene, PPE, Importance of PPE, Types of PPE and its uses, Sequence for donning and removing – PPE, Sterilization: introduction	10 Hours	CO1
2	**Sterilization and BMW Management** Sterilization vs Disinfection, Different methods of sterilization, Know about hot air oven, Autoclave, Factors affecting autoclave, Process of Autoclaving, Advantages and disadvantages of autoclave, Categorization of biomedical wastes, Steps for BMW management - Segregation and colour codes for BMW, collection, storage and transportation of waste, Different methods for treatment of biomedical waste	10 Hours	CO2

3	**Vaccination for Healthcare Professionals:** Importance of vaccines for healthcare workers, Risk categorization, Currently recommended vaccines for healthcare workers, Post exposure prophylaxis	10 Hours	CO3

Suggested Readings

1. S. Apruba Sastry, R. Deepashree, Essentials of Hospital Infection Control, Jaypee Brothers Medical Publishers
2. Singh Anantpreet, Kaur Sukhjit, Biomedical Waste Disposal, Jaypee Brothers Medical Publishers

Online Resources

1. https://www.cdc.gov
2. https://main.icmr.nic.in
3. https://www.ncbi.nlm.nih.gov/books
4. https://www.who.int/infection-prevention

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	-	-	3	2	2	2	-	2	2	2	2
CO2	2	2	-	-	-	3	1	2	2	-	2	2	2	2
CO3	2	1	-	-	-	2	1	2	2	-	2	2	1	2

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Hospital Services				
Code	BOP 203T				
Course Type	MD	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Describe hospital services, including patient care and specialized units. Explain the roles of key support services in hospital operations. Understand the functions of auxiliary services supporting hospital management.				
Course Outcomes					
CO1	Define and explain hospital services, including OPD/IPD patient care and the functions, planning, and requirements of specialized units like ICU, operation theaters, and daycare.				
CO2	Understand the functions of support services such as CSSD, dietary, laundry, blood bank, medical gas systems, and pharmacy services.				
CO3	Explain the functions and roles of auxiliary services, including registration, admitting departments, recordkeeping, ambulance & transport, and housekeeping in supporting hospital operations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Core Hospital Services:** Introduction to hospital services, Classification of hospital services, Emergency services, OPD services, Inpatient services, ICU, Operation theater, Daycare services	15 Hours	CO1
2	**Support Services:** Introduction to support services, CSSD, Dietary, Laundry, Blood bank services, Medical gas system, Pharmacy services, Quality mandates for a hospital pharmacy	15 Hours	CO2
3	**Auxiliary Services:** Registration, Admitting department, Recordkeeping, Ambulance & transport, Maintenance department, Housekeeping Department	15 Hours	CO3

Suggested Readings

1. B.M. Sakharkar, Principles of Hospital Administration and Planning, Jaypee Brothers Medical Publishers
2. Caroline Currer, Meg Stacey, Concepts of Health, Illness and Disease: A Comparative
3. Tabish Syed Amin, Hospital and Health Services Administration: Principles and Practices, OUP India

Online Resources

1. https://nhsrcindia.org
2. https://main.mohfw.gov.in
3. https://www.nabh.co

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	-	-	2	2	2	2	2	2	2	1	2
CO2	2	2	-	-	-	3	1	2	2	2	2	2	1	2
CO3	1	1	-	-	-	2	1	2	3	2	2	2	1	2

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Business Communication				
Code	BOP 204T				
Course Type	AEC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Understand and apply various communication methods in healthcare settings. Demonstrate effective communication with colleagues, clients, and customers. Handle sensitive healthcare communications confidently and professionally.				
Course Outcomes					
CO1	Understand the purpose and mechanisms of communication, including verbal, non-verbal, written, intrapersonal, and group communication, and apply them effectively in healthcare settings.				
CO2	Apply effective communication techniques in workplace interactions with colleagues, clients, and customers				
CO3	Communicate effectively in healthcare settings, addressing sensitive issues with confidence and professionalism.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Communication, its Types and Methods** Communication, Communication in society, How do we communicate, Non-verbal communication, Verbal communication, Forms of written communication, Intrapersonal communication, Group communication	15 Hours	CO1
2	**Effective Communication at Workplace:** Introduction to effective communication, Importance of effective communication, Verbal communication at workplace, Written communication at workplace	15 Hours	CO2
3	**Communication in Healthcare:** Types of communication in healthcare – Inter hospital and intra hospital communication, Causes and effects of poor communication in healthcare, Coping with anxiety while	15 Hours	CO2

	communicating bad news, Effective communication checklist in healthcare, Learn how to communicate with patients and caregivers, Tips to communicate effectively		

Suggested Readings

1. Ahuja, B.N. and S.S. Chopra, Communication, Surjeet Publications, 2006
2. Barun K Mitra, Personality Development and Soft Skills, Oxford University Press, 2016

Online Resources

1. https://www.skillsyouneed.com
2. https://www.mindtools.com
3. https://alison.com

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	-	-	-	2	3	2	1	2	1	3
CO2	-	-	-	-	-	-	-	3	3	2	-	2	-	3
CO3	-	-	-	-	-	-	2	3	3	2	1	2	-	3

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Job Ready Skills I				
Code	BOP 205T				
Course Type	SEC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	Apply time management techniques to prioritize and organize tasks efficiently. Collaborate effectively in teams by building positive relationships and enhancing quality. Use critical thinking to solve problems creatively and make informed decisions.				
Course Outcomes					
CO1	Apply time management techniques to organize and prioritize tasks efficiently.				
CO2	Work effectively in teams by understanding the dynamics, building constructive relationships, and recognizing key factors contributing to quality improvement.				
CO3	Use critical thinking to solve problems systematically and creatively, and make informed decisions in work and personal settings.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Time Management:** Introduction to time management, Importance of time management, Time management matrix, How to manage time	10 Hours	CO1
2	**Teamwork and Quality Consciousness** Introduction to teamwork, Importance of teamwork, Basic elements of teamwork, Building positive relationships, Quality, Strategies to improve quality	10 Hours	CO2
3	**Problem-solving and Decision Making Skills** Critical thinking, Developing critical thinking mindset, Decisions, Effective decision-making process	10 Hours	CO3

Suggested Readings

1. S P Dhanavel, English and Soft Skills, Orient Black Swan
2. Gupta Seema, Soft Skills - Interpersonal and Intrapersonal Skills Development, V&S Publishers

Online Resources

1. https://www.mindtools.com
2. https://www.skillsyouneed.com

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	2	2	2	1	2	-	2
CO2	-	-	-	-	-	-	-	3	3	2	2	2	-	3
CO3	1	1	-	-	-	-	2	2	2	2	1	3	1	2

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	AI Tools				
Code	BOP 206T				
Course Type	VAC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Understand fundamental concepts of artificial intelligence and the types of AI tools available. Explore common AI tools and platforms, learning their key features and real-world applications. Apply AI tools responsibly while recognizing ethical considerations in their usage.				
Course Outcomes					
CO1	Explain the basics of AI and identify different categories of AI tools.				
CO2	Demonstrate familiarity with popular AI platforms and describe their functionalities.				
CO3	Evaluate ethical challenges in AI and practice responsible use of AI technologies.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Introduction to Artificial Intelligence and AI Tools** Overview of Artificial Intelligence (AI) concepts, Types of AI tools and their applications, Basics of machine learning and data processing	15 Hours	CO1
2	**Common AI Tools and Platforms** Introduction to popular AI tools (e.g., chatbots, image recognition, speech recognition), Features and functionalities of AI platforms, Use cases across industries	15 Hours	CO2
3	**Practical Applications and Ethical Considerations** How to use AI tools effectively in everyday tasks, Benefits and challenges of AI adoption, Ethical issues and responsible AI use	15 Hours	CO3

Suggested Readings

1. Russell, Stuart, and Peter Norvig. 2021. Artificial Intelligence: A Modern Approach. 4th ed. Upper Saddle River, NJ: Pearson.
2. Nilsson, Nils J. 2014. Principles of Artificial Intelligence. San Francisco, CA: Morgan Kaufmann.
3. Marr, Bernard. 2020. Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems. New York: Wiley.
4. Floridi, Luciano. 2019. The Ethics of Artificial Intelligence. Oxford: Oxford University Press.

Online Resources

1. https://ai.google.dev/
2. https://github.com/microsoft/AI-For-Beginners

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	-	-	2	1	2	1	1
CO2	-	-	-	-	-	-	-	-	-	3	-	2	1	1
CO3	-	-	-	-	-	-	-	3	2	2	2	3	-	2

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Ocular Anatomy & Physiology and Optics I Lab				
Code	BOP 201P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	6	3
Course Objectives	Examine and describe the anatomy and physiology of the eyelids, anterior segment, and conjunctiva. Measure the amplitude of accommodation and understand its clinical significance. Perform essential basic optometric procedures for vision assessment. Integrate anatomical, physiological, and laboratory knowledge to support accurate clinical examination and diagnosis.				
Course Outcomes					
CO1	Accurately identify and explain the structure and function of the eyelids, anterior segment, and conjunctiva of the eye.				
CO2	Measure and interpret the amplitude of accommodation in patients.				
CO3	Demonstrate understanding in basic optometric examination techniques.				
CO4	Correlate clinical findings with anatomical and laboratory data for effective patient care in optometry.				

S. No.	List of Experiments	
1	Examine ocular anatomy and physiology of eyelids.	CO1
2	Examine ocular anatomy and physiology of anterior segment.	CO1
3	Examine ocular anatomy and physiology of conjunctiva.	CO1
4	Measure the amplitude of accommodation.	CO1
5	Perform basic optometric procedures.	CO1

Suggested Readings

1. Ophthalmic Anatomy and Physiology, R. S. Ghosh, Jaypee Brothers Medical Publishers
2. Essentials of Visual Optics, B. K. Sharma, Jaypee Brothers Medical Publishers
3. Pharmacology for Optometrists N. D. S. Sukhija, Elsevier India
4. Textbook of General and Ocular Pathology, P. S. Tiwari, CBS Publishers & Distributors
5. Microbiology and Biochemistry for Medical Students S. R. Tiwari, Elsevier India

Online Resources

1. https://www.kenhub.com/en/videos/anatomy-of-lacrimal-apparatus
2. https://www.kenhub.com/en/library/anatomy/conjunctiva
3. https://www.aao.org/eye-health/anatomy/parts-of-eye
4. https://www.ncbi.nlm.nih.gov/books/NBK519502/

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	2	-	-	-	1	-	-	-	2	3	2
CO2	-	-	3	2	-	-	-	-	-	1	-	2	3	2
CO3	2	-	3	3	2	-	-	-	-	1	-	2	3	3
CO4	3	2	2	3	2	1	-	2	-	2	1	3	3	3

Program	Bachelor of Optometry				
Year	I	**Semester**	II		
Course Name	Infection Control and Biomedical Waste Management Lab				
Code	BOP 202P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	4	2
Course Objectives	Demonstrate effective hand hygiene through proper handwashing and hand rub techniques to prevent infections. Perform correct donning and doffing of PPE to ensure safety and infection control. Apply biomedical waste segregation using appropriate color-coded bins in compliance with regulations.				
Course Outcomes					
CO1	Demonstrate proper hand hygiene techniques through effective handwashing and handrub methods to prevent healthcare-associated infections.				
CO2	Perform correct donning and doffing procedures for Personal Protective Equipment (PPE) ensuring infection control and personal safety in clinical settings.				
CO3	Apply biomedical waste segregation protocols by identifying waste categories and using appropriate color-coded bins in compliance with safety and regulatory standards.				

S. No.	List of Experiments	
1	Perform method of handwashing	CO1
2	Perform method of handrub	CO1
3	Perform donning and doffing of PPE	CO2
4	Segregation of biomedical waste	CO3

Suggested Readings

1. S. Apruba Sastry, R. Deepashree, Essentials of Hospital Infection Control, Jaypee Brothers Medical Publishers, 2019

2. Singh Anantpreet, Kaur Sukhjit, Biomedical Waste Disposal, Jaypee Brothers Medical Publishers, 2012

Online Resources

1. https://www.cdc.gov
2. https://main.icmr.nic.in
3. https://www.ncbi.nlm.nih.gov/books
4. https://www.who.int/infection-prevention

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	3	2	2	-	-	2	2	-	2
CO2	-	-	-	-	-	3	2	2	-	-	2	2	-	2
CO3	-	-	-	-	-	3	2	2	-	-	3	2	-	2

Program	Bachelor of Optometry				
Year	II	**Semester**	III		
Course Name	Ocular Anatomy & Physiology and Optics II				
Code	BOP 301T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite	Ocular Anatomy & Physiology and Optics I	3	1	0	4
Course Objectives	Describe the structure and function of the cornea, lens, uvea, and retina, and explain the pathophysiology and clinical features of common diseases affecting these ocular components. Identify, describe, and demonstrate the use of key optometric instruments and procedures in assessing visual function and diagnosing ocular conditions. Apply optical principles to refraction techniques, lens design, and the fitting of spectacles and contact lenses to optimize visual correction. Explain the development, disorders, and diagnostic techniques of binocular vision, and outline appropriate treatment and management strategies including vision therapy and prism correction				
Course Outcomes					
CO1	Explain the structure and functions of the cornea, lens, uvea and retina, and associated disorders to analyze ocular health conditions.				
CO2	Explain the purpose, procedures, and applications of key optometric tests—such as refraction and visual field analysis—while identifying and demonstrating the use of related instruments in routine eye examinations				
CO3	Describe the principles of optics related to spectacles and lenses.				
CO4	Describe the stages of binocular vision development and apply diagnostic techniques to identify and manage basic binocular vision disorders				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Ocular Anatomy & Physiology II:** Cornea, Diseases of cornea, Lens, Diseases of lens, Uvea, Diseases of uvea, Retina, Diseases of retina	15 Hours	CO1

2	**Optometric Instruments and Procedures:** Phoropter, Retinoscope, Slit Lamp, Ophthalmoscope, Autorefractor/Autokeratometer, A-scan ultrasound, B-scan ultrasound, Visual Field analyzer, Wavefront aberrometer, Fundus camera, Pachymeter, Lensmeter (Focimeter), Retinoscopy rack, Contrast sensitivity test, Refraction test, Tonometry, Slit lamp examination, Visual Field Test, Fundus examination, Corneal topography, Visual acuity test, Refraction with phoropter, Pupil reaction test, Color vision testing, Accommodative testing, Orthoptic exercises, Stereopsis test, Retinoscopy	15 Hours	CO2
3	**Optometric Optics:** Advanced refraction techniques, Optical principles of spectacles and lenses, Bifocals and multifocal lenses, Contact lenses: Types and optics, Dispensing optics, Optics of the eye and its role in vision, Visual angle and its measurement	15 Hours	CO3
4	**Binocular Vision:** Basic principles of binocular vision, Stages and critical periods in binocular vision development, Binocular vision disorders (Strabismus, convergence insufficiency, and amblyopia), Diagnostic techniques (Cover test, Maddox rod test, stereopsis testing), Treatment and management (vision therapy, prism lenses, and orthoptic exercises)	15 Hours	CO4

Suggested Readings

1. Manual of Optometry by Anisha Gupta, Jaypee Brothers Medical Publishers
2. Optometric Instrumentation and Clinical Applications by S. Basak, Jaypee Brothers Medical Publishers
3. Contact Lens Practice by Dr. Rishi Bhardwaj, CBS Publishers & Distributors
4. Basic Optics and Optical Instruments by B.K. Gupta, New Age International Publishers
5. Binocular Vision and Ocular Motility by P.K. Chawla, Jaypee Brothers Medical Publisher

Online Resources

1. https://www.nei.nih.gov/learn-about-eye-health/healthy-vision/how-eyes-work
2. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases
3. https://www.aoa.org/healthy-eyes/caring-for-your-eyes/eye-exams
4. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/refractive-errors
5. https://www.aao.org/eyenet/article/clinical-examination-of-binocular-vision

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2

CO1	3	2	-	2	-	-	-	-	-	-	1	2	3	1
CO2	2	2	3	3	2	-	-	-	1	2	-	2	3	3
CO3	-	-	2	-	3	-	-	-	-	2	-	1	2	2
CO4	-	-	2	2	-	-	-	-	1	-	-	2	2	3

Program	Bachelor of Optometry				
Year	II	**Semester**	III		
Course Name	Low Vision Aids				
Code	BOP 302T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Understand the causes, classification, and psychosocial impact of low vision on daily life. Demonstrate techniques for assessing low vision, including visual acuity, visual field, contrast sensitivity, and functional vision evaluation. Identify, select, and train patients in the use of appropriate optical and non optical low vision aids based on individual needs. Explain the types, fitting procedures, indications, and care of contact lenses, including patient counseling and special considerations.				
Course Outcomes					
CO1	Understand the causes and classification of low vision, its impact on daily life, and the psychological and social implications for patients.				
CO2	Demonstrate the ability to assess low vision through various methods such as visual acuity tests, functional vision assessments, and the use of appropriate charts and devices.				
CO3	Identify and recommend appropriate optical and non-optical aids based on the visual needs, preferences, and daily living requirements of low vision patients.				
CO4	Describe different types of contact lenses and their indications, and understand pre-fitting assessments and basic fitting procedures.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Introduction to Low Vision:** Low vision and its causes (e.g., macular degeneration, diabetic retinopathy, glaucoma), Classification of low vision, Impact of low vision on daily life, Psychological and social implications of low vision	11 Hours	CO1

2	**Assessment of Low Vision:** Techniques for low vision assessment (visual acuity, visual field, contrast sensitivity), Functional vision assessment, Use of charts and devices (e.g., contrast sensitivity charts, Amsler grids), Documentation and evaluation of low vision	12 Hours	CO2
3	**Optical Low And Non Optical Vision Aids:** Magnifiers (hand-held, stand magnifiers, and electronic magnifiers), Telescopic lenses and devices (bioptic telescopes, monocular telescopes), Special lenses (high-power spectacles, bifocal and trifocal lenses), Choosing the appropriate aid based on patient needs, Training and counselling, Use of adaptive devices (e.g., large-print books, writing guides, electronic readers), Training on the use of non-optical aids for daily activities (e.g., writing, cooking), Orientation and mobility aids (e.g., canes, GPS systems), Braille and tactile reading aids, Training and counselling	11 Hours	CO3
4	**Contact Lens:** Types of contact lenses, manufacturing of soft and rigid contact lens, indications and contraindications of contact lens, discussion with patient, choice of lens types, Fitting procedure, pre-fitting examination steps, types of fit, handling instruction, insertion and removal, Do's and don't and care and maintenance, Special investigations in pre-fitting examination, CL fitting in astigmatism, aphakia, comparison between CL and spectacles, contact lens care	12	CO4

Suggested Readings

1. Low Vision Aids: Principles and Practice, Dr. N. G. K. Pillai, Jaypee Brothers Medical Publishers
2. Clinical Optometry: Low Vision and its Management, Dr. R. S. Awasthi, Elsevier India
3. Ophthalmic Optics and Low Vision, Dr. Pradeep J. Mehta, CBS Publishers & Distributors
4. Low Vision: A Guide for the Practitioner, Steven J. Marra, Slack Incorporated
5. Contact Lens Practice by Dr. Rishi Bhardwaj, CBS Publishers & Distributors

Online Resources:

1. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/low-vision
2. https://www.aao.org/eye-health/diseases/low-vision-
3. https://webaim.org/articles/visual/lowvision
4. https://www.afb.org/node/16207/low-vision-optical-devices
5. https://www.cdc.gov/contact-lenses/about/about-contact-lens-types.html
6. https://www.aoa.org/healthy-eyes/vision-and-vision-correction/contact-lens-care

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2

CO1	2	-	-	1	-	-	-	3	2	-	3	2	2	3
CO2	2	1	2	3	-	-	-	-	-	2	-	2	3	3
CO3	-	-	2	2	3	-	-	-	1	2	-	2	3	3
CO4	1	1	1	2	3	-	-	-	-	2	-	2	2	2

Program	Bachelor of Optometry				
Year	II	Semester	III		
Course Name	Medical Law and Ethics				
Code	BOP 303T				
Course Type	MD	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objectives	Explain the principles and importance of medical ethics and demonstrate professionalism through adherence to a healthcare code of conduct. Describe types of consent, their significance, and the management of medico-legal cases with legal compliance. Differentiate between malpractice and negligence and understand their ethical and legal implications in medical practice.				
Course Outcomes					
CO1	Explain the principles, need, and importance of medical ethics, and demonstrate professionalism through adherence to a proper code of conduct in healthcare practice.				
CO2	Explain types of consent and their importance, and understand medico-legal cases including proper consent and legal compliance in medical practice.				
CO3	Explain the difference between malpractice and negligence, and understand their ethical and legal implications.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Medical Ethics and Professional Conduct** Medical ethics, Need and importance of medical ethics, Principles of medical ethics, Professionalism, Code of conduct and its importance, Attributes of code of conduct	15 Hours	CO1
2	**Consent and Medico-Legal Understanding** Consent, Types of consent, Importance of consent, Medico Legal Cases, Consent and management of MLC	15 Hours	CO2
3	**Medical Malpractice and Negligence:** Medical malpractice and negligence, Malpractice vs negligence, Ethical vs legal	15 Hours	CO3

Suggested Readings

1. B. Sandeepa Bhat, Reflections on Medical Law and Ethics in India, Eastern Law House
2. Subrata Sharma, Medical Ethics Challenges and prospects in India

Online Resources

1. https://imlindia.com

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	2	1	3	2	-	3	2	-	3
CO2	-	-	-	-	-	2	2	3	2	-	3	2	-	3
CO3	-	-	-	-	-	2	2	3	2	-	3	2	-	3

Program	Bachelor of Optometry				
Year	II	**Semester**	III		
Course Name	Sales and Marketing				
Code	BOP 304T				
Course Type	AEC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	1	0	3
Course Objectives	Understand the key elements, types, and processes involved in marketing health services. Analyze market segmentation, targeting, and positioning strategies relevant to healthcare Practice sales techniques and address challenges within healthcare marketing scenarios.				
Course Outcomes					
CO1	Explain the elements, types, and process of marketing in health services, including market segmentation benefits and bases.				
CO2	Develop effective market targeting and positioning strategies for health services.				
CO3	Describe the sales process and apply techniques for closing sales while addressing challenges in healthcare marketing.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Fundamentals of Health Services Marketing:** Marketing in health services, Elements of marketing, Types of marketing mix, Process of marketing of health services, Market segmentation principles, benefits and bases for segmentation in healthcare	15 Hours	CO1
2	**Market Targeting and Positioning in Healthcare:** Market targeting and targeting strategies, Marketing positioning and positioning strategies,	15 Hours	CO2
3	**Sales Techniques:** Introduction to sales, sales processes, closing techniques, and challenges in sales.	15 Hours	CO3

Suggested Readings

1. Marketing Management, Philip Kotler and Kevin Lane Keller
2. Sales Management: Building Customer Relationships and Partnerships, Joseph F. Hair, Rolph E. Anderson, and Rajiv Mehta

Online Resources

1. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/copay

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	1	2	2	3	2	-	2
CO2	-	-	-	-	-	-	-	2	2	2	3	2	-	2
CO3	-	-	-	-	-	-	-	2	3	2	3	2	-	2

Program	Bachelor of Optometry				
Year	II	**Semester**		III	
Course Name	Job Ready Skills II				
Code	BOP 305T				
Course Type	SEC	**L**	**T**	**P**	**Credit**
Pre-Requisite	Job Ready Skills I	2	0	0	2
Course Objectives	Develop a positive mindset and apply emotional intelligence to manage interpersonal relationships effectively. Utilize stress management techniques and enhance negotiation skills for professional growth. Foster a result-oriented mindset to accomplish personal and organizational objectives.				
Course Outcomes					
CO1	Cultivate a positive mindset and demonstrate emotional intelligence to manage relationships effectively.				
CO2	Apply stress management techniques and develop negotiation skills for professional success.				
CO3	Adopt a result-oriented approach to achieve personal and organizational goals.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Positive Mindset and Emotional Intelligence:** Introduction to positive mindset, Importance of positive mindset, Developing a positive mindset, Emotional quotient, Components of emotional intelligence	10 Hours	CO1
2	**Stress Management and Negotiation Skills:** Stress, Ways to manage stress, Negotiation and its outcomes, Ways to develop effective negotiation skills	10 Hours	CO2
3	**Result Orientation:** Introduction to result orientation, Ways to develop result oriented mindset	10 Hours	CO3

Suggested Readings

1. Emotional Intelligence 2.0, Travis Bradberry and Jean Greaves
2. Mindset: The New Psychology of Success, Carol S. Dweck
3. S P Dhanavel, English and Soft Skills, Orient BlackSwan
4. Gupta Seema, Soft Skills - Interpersonal and Intrapersonal Skills Development, V&S Publishers

Online Resources

1. https://www.mindtools.com
2. https://www.skillsyouneed.com

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	3	3	-	2	2	-	3
CO2	-	-	-	-	-	-	2	3	3	-	2	2	-	3
CO3	-	-	-	-	-	-	-	3	2	-	2	3	-	2

Program	Bachelor of Optometry				
Year	II	**Semester**	III		
Course Name	Ocular Anatomy & Physiology and Optics II Lab				
Code	BOP 301P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite	Ocular Anatomy & Physiology and Optics II	0	0	8	4
Course Objectives	Describe the structure and function of the cornea, lens, uvea, and retina, and explain the pathophysiology and clinical features of common diseases affecting these ocular components. Identify, describe, and demonstrate the use of key optometric instruments and procedures in assessing visual function and diagnosing ocular conditions. Apply optical principles to refraction techniques, lens design, and the fitting of spectacles and contact lenses to optimize visual correction. Explain the development, disorders, and diagnostic techniques of binocular vision, and outline appropriate treatment and management strategies including vision therapy and prism correction				
Course Outcomes					
CO1	Describe and examine the anatomical structures and physiological functions of the cornea, lens, uvea, and retina, and identify related clinical conditions through practical observation.				
CO2	Demonstrate the ability to perform refraction techniques accurately, including objective and subjective refraction, and interpret findings to determine refractive errors.				
CO3	Operate and apply slit lamp biomicroscopy to evaluate anterior segment structures, including cornea, lens, and anterior chamber, for diagnostic purposes.				
CO4	Integrate theoretical understanding of ocular anatomy with hands-on diagnostic skills to support clinical decision-making in routine optometric examinations.				

S. No.	List of Experiments	
1	Examine ocular anatomy and physiology of cornea.	CO1

2	Examine ocular anatomy and physiology of lenses..	CO1
3	Examine ocular anatomy and physiology of uvea.	CO1
4	Examine ocular anatomy and physiology of retina	CO1
5	Perform refraction techniques.	CO2, CO4
6	Perform slit lamp examination.	CO3, CO4

Suggested Readings

1. Manual of Optometry by Anisha Gupta, Jaypee Brothers Medical Publishers
2. Optometric Instrumentation and Clinical Applications by S. Basak, Jaypee Brothers Medical Publishers
3. Contact Lens Practice by Dr. Rishi Bhardwaj, CBS Publishers & Distributors
4. Basic Optics and Optical Instruments by B.K. Gupta, New Age International Publishers
5. Binocular Vision and Ocular Motility by P.K. Chawla, Jaypee Brothers Medical Publisher

Online Resources

1. https://www.nei.nih.gov/learn-about-eye-health/healthy-vision/how-eyes-work
2. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases
3. https://www.aoa.org/healthy-eyes/caring-for-your-eyes/eye-exams
4. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/refractive-errors
5. https://www.aao.org/eyenet/article/clinical-examination-of-binocular-vision

Course Articulation Matrix

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

Program	Bachelor of Optometry				
Year	II	**Semester**	III		
Course Name	Low Vision Aid Lab				
Code	BOP 302P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	6	3
Course Objectives	Identify and classify various optical and non-optical low vision aids used in clinical practice. Evaluate patients with low vision using appropriate assessment techniques and tools. Train patients in the effective use of selected low vision aids for daily activities. Perform comprehensive contact lens fitting and assessment procedures.				
Course Outcomes					
CO1	Accurately identify and describe different types of low vision aids, including magnifiers, telescopes, and adaptive devices.				
CO2	Conduct thorough low vision evaluations using visual acuity, visual field, and contrast sensitivity tests, and document findings.				
CO3	Demonstrate the ability to instruct and support patients in the use of low vision aids for improved functional vision and independence.				
CO4	Perform contact lens fitting, including patient selection, lens choice, fitting assessment, and patient education.				

S. No.	List of Experiments	
1	Identify different types of low vision aids.	CO1
2	Evaluate a patient with low vision.	CO2
3	Train on the usage of low vision aids.	CO3
4	Perform contact lens fitting and assessment.	CO4

Suggested Readings

1. Low Vision Aids: Principles and Practice, Dr. N. G. K. Pillai, Jaypee Brothers Medical

Publishers
2. Clinical Optometry: Low Vision and its Management, Dr. R. S. Awasthi, Elsevier India
3. Ophthalmic Optics and Low Vision, Dr. Pradeep J. Mehta, CBS Publishers & Distributors
4. Low Vision: A Guide for the Practitioner, Steven J. Marra, Slack Incorporated

Online Resources

1. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/low-vision
2. https://www.aao.org/eye-health/diseases/low-vision-
3. https://webaim.org/articles/visual/lowvision
4. https://www.afb.org/node/16207/low-vision-optical-devices
5. https://www.cdc.gov/contact-lenses/about/about-contact-lens-types.html
6. https://www.aoa.org/healthy-eyes/vision-and-vision-correction/contact-lens-car

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	2	-	2	2	3	-	-	-	-	1	2	2	3	3
CO 2	2	1	2	3	-	-	-	-	-	2	-	2	3	3
CO 3	1	-	2	2	3	-	-	3	3	2	2	2	3	3
CO 4	2	1	2	2	3	-	-	2	2	2	-	2	3	3

Program	Bachelor of Optometry				
Year	II	**Semester**	IV		
Course Name	Specialised Optometry I				
Code	BOP 401T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		3	1	0	4
Course Objectives	Explain the principles of public health as applied to optometry. Conduct and interpret vision screening and health promotion activities. Assess community eye health needs and design outreach programs. Identify occupational visual demands and recommend preventive strategies.				
Course Outcomes					
CO1	Describe key public health strategies for eye care and prevention.				
CO2	Organize and participate in vision screening and health education programs.				
CO3	Understand eye health needs at the community level.				
CO4	Advice on workplace eye safety and manage occupational vision issues.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Foundations of Public Health Optometry:** Introduction to public health optometry, Public health strategies for eye care, Role of optometrists in public health, Preventive eye care and early detection	15 Hours	CO1
2	**Vision Screening and Health Promotion:** Vision screening programs, Health education in optometry, Promotion of eye health, Early detection strategies,Community awareness initiatives	15 Hours	CO2
3	**Community Eye Health Needs:** Community eye health assessment, Designing community eye care programs, Outreach and referral systems, School vision screening, Mobile eye care services	15 Hours	CO3

4	**Occupational Optometry:** Visual demands of occupations, Workplace eye safety, Computer vision syndrome, Eye protection standards, Occupational hazards and screening	15 Hours	CO4

Suggested Readings

1. Johnson, G.J., D. Minassian, R.A. Weale, and S.K. West (eds.). 2003. The Epidemiology of Eye Disease. 2nd ed. London, UK: Arnold.
2. World Health Organization. 2019. World Report on Vision. Geneva, Switzerland: WHO Press.
3. Swami Vivekananda University. 2023. Pearls of Clinical Optometry: A Complete Guide to Optometric Practice. Kolkata, India: Swami Vivekananda University Press.
4. Kanski, J.J. and B. Bowling. 2015. Clinical Ophthalmology: A Systematic Approach. 8th ed. Philadelphia, PA: Elsevier Saunders.

Online Resources

1. https://www.ncbi.nlm.nih.gov/books/NBK402363/
2. https://www.aoa.org/advocacy/health-policy-institute/public-health-promotion-and-disease-prevention
3. https://www.cdc.gov/vision-health/media/pdfs/VisionAndEyeHealthGuide508.pdf
4. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_892937.pdf
5. https://www.aoa.org/healthy-eyes/caring-for-your-eyes/protecting-your-vision

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	1	-	-	-	2	-	2	2	1	3	2	2	2
CO2	2	-	2	1	2	2	1	2	2	2	3	3	2	3
CO3	2	1	-	1	1	2	-	2	2	-	3	2	2	2
CO4	2	1	1	1	3	2	1	2	2	1	3	2	2	2

Program	Bachelor of Optometry				
Year	II	Semester		IV	
Course Name	Specialised Optometry II				
Code	BOP 402T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objectives	Understand normal and abnormal visual development in children. Identify and manage common pediatric eye conditions. Conduct pediatric vision assessment and communicate with families. Recognize, manage major geriatric eye diseases and provide basic low vision rehabilitation and counseling for elderly patients.				
Course Outcomes					
CO1	Explain stages of visual development and conduct pediatric eye exams.				
CO2	Diagnose and outline management for common childhood eye conditions.				
CO3	Perform vision screening and provide parent education.				
CO4	Identify, support and manage age-related eye diseases in the elderly.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Normal Visual Development in Children:** Stages of visual development, Visual milestones, Factors affecting development, Screening protocols, Pediatric eye examination techniques	15 Hours	CO1
2	**Common Pediatric Eye Conditions:** Amblyopia, Strabismus, Congenital cataracts, Refractive errors in children, Pediatric ocular infections	15 Hours	CO2
3	**Pediatric Vision Assessment and Management:** Vision screening in children, Orthoptic exercises and therapies, Management of refractive errors, Counseling parents, Referral guidelines	15 Hours	CO3

4	**Geriatric Eye Conditions and Their Assessment & Rehabilitation:** Age-related macular degeneration, Cataract in the elderly, Glaucoma in older adults, Presbyopia, Low vision in seniors, Comprehensive geriatric eye examination, low vision aids and rehabilitation, Counseling elderly patients, Multidisciplinary care, Community support resources	15 Hours	CO4

Suggested Readings

1. Scheiman, M. and B. Wick. 2014. Clinical Management of Binocular Vision: Heterophoric, Accommodative, and Eye Movement Disorders. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins.
2. Kanski, J.J. and B. Bowling. 2015. Clinical Ophthalmology: A Systematic Approach. 8th ed. Philadelphia, PA: Elsevier Saunders.
3. Swami Vivekananda University. 2023. Pearls of Clinical Optometry: A Complete Guide to Optometric Practice. Kolkata, India: Swami Vivekananda University Press

Online Resources

1. https://www.aao.org/eye-health/tips-prevention/baby-vision-development-first-year
2. https://www.aoa.org/healthy-eyes/eye-health-for-life/infant-vision
3. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/low-vision
4. https://www.cdc.gov/visionhealth/index.html

Course Articulation Matrix

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

Program	Bachelor of Optometry				
Year	II	**Semester**		IV	
Course Name	Diseases				
Code	BOP 403T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	2	0	4
Course Objectives	Explain and differentiate common anterior segment and ocular surface diseases. Describe and recognize key retinal and vitreous diseases and their clinical features. Summarize types, risk factors, and basic management of glaucoma and optic nerve disorders. Identify and discuss major pediatric ocular diseases and their early interventions.				
Course Outcomes					
CO1	Explain the pathophysiology, symptoms, and treatment options for common anterior segment diseases				
CO2	Describe the characteristics, risk factors, and clinical management of retinal and vitreous diseases				
CO3	Identify the signs, symptoms, and management strategies for various glaucomatous conditions, optic neuritis, and neuro-ophthalmic disorders				
CO4	Summarize the clinical presentation and management of pediatric eye diseases				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Ocular Surface and Anterior Segment Diseases:** Conjunctival disorders, Eyelids disorders, Corneal conditions, Scleral disorders and uveal tract diseases.	15 Hours	CO1
2	**Retinal and Vitreous Diseases:** Diabetic retinopathy, Hypertensive retinopathy, Age-related macular degeneration (AMD), Retinal detachment, Retinitis	15 Hours	CO2

	pigmentosa and retinal dystrophies, Macular edema and Central serous retinopathy		
3	**Glaucoma and Optic Nerve Disorders:** Primary open-angle glaucoma, Angle-closure glaucoma, Glaucomatous optic neuropathy, Optic neuritis, Papilledema, Neuro-Ophthalmic Disorders	15 Hours	CO3
4	**Pediatric Ocular Diseases:** Amblyopia (Lazy Eye), Strabismus (Squint), Congenital cataracts, Retinopathy of Prematurity (ROP): Staging, screening, and management, Congenital Glaucoma	15 Hours	CO4

Suggested Readings

1. Clinical Optometry, R. N. Sihota & S. S. Tiwari, Elsevier
2. Textbook of Ophthalmology, R. A. Jayaram, Jaypee Brothers Medical Publishers
3. Glaucoma: A Handbook of Diagnosis and Therapy, S. R. Sihota & R. D. Tiwari, Jaypee Brothers Medical Publishers
4. Pediatric Ophthalmology: A Practical Approach, K. S. G. Gopala Krishna, Jaypee Brothers Medical Publishers
5. Ophthalmic Trauma, S. S. Tiwari & R. N. Sihota, Elsevier

Online Resources

1. https://www.aao.org/eye-health/diseases/what-is-diabetic-retinopathy
2. https://www.cdc.gov/conjunctivitis/hcp/clinical-overview/index.html
3. pmc.ncbi.nlm.nih.gov
4. https://pubmed.ncbi.nlm.nih.gov/17574062/
5. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/glaucoma
6. https://publications.aap.org/pediatrics/article/142/6/e20183061/37478/

Course Articulation Matrix													
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2	3	2	2	2	2	1	1	1	2	3	2
CO2	3	3	2	3	2	2	2	2	1	1	1	2	3	2
CO3	3	3	2	3	2	2	3	2	1	1	1	2	3	3
CO4	3	2	2	2	2	1	2	2	2	1	2	2	3	3

Program	Bachelor of Optometry				
Year	II	**Semester**	IV		
Course Name	Visual Aids				
Code	BOP 404T				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	Understand the principles, scope, and goals of vision rehabilitation for individuals with visual impairment. Perform comprehensive functional vision assessments and identify rehabilitation needs. Select, prescribe, and train patients in the use of optical, non-optical, and electronic vision aids. Assist in individualized rehabilitation plans, including visual skills training and environmental adaptations.				
Course Outcomes					
CO1	Explain the impact of vision impairment and the role of rehabilitation in improving quality of life.				
CO2	Conduct and interpret functional vision assessments using appropriate tools and techniques.				
CO3	Recommend and demonstrate the use of specialized visual aids and assistive technologies.				
CO4	Understand rehabilitation interventions for diverse patient populations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Foundations of Vision Rehabilitation:** Definition and scope of vision rehabilitation, Epidemiology and causes of visual impairment, Impact of vision loss on daily living and psychosocial health, Principles and goals of rehabilitation, Multidisciplinary team roles in rehabilitation	7 Hours	CO1
2	**Assessment in Vision Rehabilitation:** Functional vision assessment (acuity, fields, contrast sensitivity), Clinical examination techniques for low vision, Assessment of activities of daily living (ADLs), Patient history and goal setting, Documentation and communication with the rehabilitation team	8 Hours	CO2

3	**Optical and Non-Optical Rehabilitation Devices:** Optical low vision aids: magnifiers, telescopes, high-powered spectacles, Non-optical aids: lighting, contrast enhancement, large print, tactile markers,Electronic and assistive technologies: CCTVs, screen readers, mobile apps, Selection principles and device training	8 Hours	CO3
4	**Rehabilitation Interventions and Training:** Visual skills training and adaptation, Reading and writing with low vision, Orientation and mobility training, Environmental modification and safety, Counseling for psychosocial adaptation	7 Hours	CO4

Suggested Readings

1. Whittaker, S.G., J.L. Scheiman, and R.L. Sokol-McKay. 2016. Low Vision Rehabilitation: A Practical Guide for Occupational Therapists. New York, NY: Springer.
2. Corn, A.L. and J.S. Erin. 2010. Foundations of Low Vision: Clinical and Functional Perspectives. 2nd ed. New York, NY: AFB Press.
3. Brilliant, R.L. 1999. Essentials of Low Vision Practice. Boston, MA: Butterworth-Heinemann.
4. Markowitz, S.N. 2006. Low Vision Rehabilitation: A Practical Guide for the Clinician. New York, NY: Springer.

Online Resources

1. https://www.cdc.gov/vision-health/media/pdfs/VisionAndEyeHealthGuide508.pdf
2. https://pubmed.ncbi.nlm.nih.gov/20039847/
3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6517854/
4. https://journals.lww.com/jcor/fulltext/2022/10030/an_updated_approach_to_low_vision_assessment.13.aspx
5. https://www.aoa.org/healthy-eyes/caring-for-your-eyes/low-vision-and-vision-rehab

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	2	2	2	1	2	3	2	1	3	2	2	3
CO2	2	2	3	3	2	1	2	2	2	2	2	2	3	3
CO3	2	2	3	2	3	2	2	3	2	2	2	2	3	3
CO4	2	2	2	2	2	1	2	3	2	1	3	2	2	3

Program	Bachelor of Optometry				
Year	II	**Semester**	IV		
Course Name	Leadership Skills for Business Success				
Code	BOP 405T				
Course Type	AEC	**L**	**T**	**P**	**Credit**
Pre-Requisite		2	0	0	2
Course Objectives	To develop a strong sense of ownership and responsibility, encouraging learners to be accountable and proactive in both personal and professional settings while promoting adaptability through a growth mindset. To equip learners with interpersonal and leadership skills, including conflict resolution, openness to feedback, initiative-taking, strategic thinking, and mentoring in diverse environments. To foster an entrepreneurial mindset, nurturing a bias for action and enhancing creative problem-solving abilities needed for innovation and success in dynamic contexts.				
Course Outcomes					
CO1	Demonstrate ownership and a growth mindset by taking initiative, embracing challenges, adapting to change, and being accountable for tasks.				
CO2	Apply effective interpersonal and leadership skills by managing conflicts constructively, showing openness to feedback, mentoring others, and thinking strategically.				
CO3	Exhibit entrepreneurial thinking by taking proactive action and solving problems innovatively in personal and professional contexts.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	**Personal Ownership and Growth Mindset:** Ownership, Taking ownership, Ways to develop ownership, Fixed mindset vs Growth mindset, Ways to develop a growth mindset, Adaptability	10 Hours	CO1
2	**Conflict and Leadership Skills:** Conflict, Types of conflicts, Ways to manage conflicts, Openness to feedback, Taking initiative, Strategic thinking skills, Mentoring skills	10 Hours	CO2

3	**Entrepreneurial Mindset and Problem Solving** Entrepreneurial mindset: bias for action, Importance of problem-solving in leadership and innovation, Integrating ownership and growth mindset into entrepreneurial thinking	10 Hours	CO3

Suggested Readings

1. The Five Dysfunctions of a Team: A Leadership Fable, Patrick Lencioni
2. Getting Things Done: The Art of Stress-Free Productivity, David Alle

Online Resources

1. https://www.mindtools.com
2. https://www.skillsyouneed.com

Course Articulation Matrix														
PO-PSO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	-	-	-	-	-	-	-	3	2	-	2	3	-	2
CO2	-	-	-	-	-	-	-	3	3	-	2	2	-	3
CO3	-	-	-	-	-	-	-	2	2	2	2	3	-	2

Program	Bachelor of Optometry				
Year	II	**Semester**		IV	
Course Name	Specialised Optometry I Lab				
Code	BOP 401P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	8	4
Course Objectives	Create awareness materials on eye care and common eye diseases. Demonstrate basic eye assessment techniques. Perform exercises for strabismus and amblyopia. Show proper eye protection and discuss safety standards.				
Course Outcomes					
CO1	Design and share simple eye health awareness materials.				
CO2	Accurately perform visual acuity, IOP checks, and fundus exams.				
CO3	Demonstrate basic vision therapy exercises.				
CO4	Apply eye protection methods and explain workplace safety.				

S. No.	List of Experiments	
1	Create awareness materials on preventive eye care or common eye diseases.	CO1
2	Practice basic assessment techniques such as visual acuity testing, intraocular pressure checks (using a model or tonometer), and basic fundus examination.	CO2
3	Demonstrate basic exercises used to manage conditions like strabismus or amblyopia.	CO3
4	Demonstrate proper eye protection techniques and discuss safety standards for various occupations.	CO4

Suggested Readings

1. Johnson, G.J., D. Minassian, R.A. Weale, and S.K. West (eds.). 2003. The Epidemiology of Eye Disease. 2nd ed. London, UK: Arnold.
2. World Health Organization. 2019. World Report on Vision. Geneva, Switzerland: WHO

Press.
3. Swami Vivekananda University. 2023. Pearls of Clinical Optometry: A Complete Guide to Optometric Practice. Kolkata, India: Swami Vivekananda University Press.
4. Kanski, J.J. and B. Bowling. 2015. Clinical Ophthalmology: A Systematic Approach. 8th ed. Philadelphia, PA: Elsevier Saunders.

Online Resources

1. https://www.ncbi.nlm.nih.gov/books/NBK402363/
2. https://www.aoa.org/advocacy/health-policy-institute/public-health-promotion-and-disease-prevention
3. https://www.cdc.gov/vision-health/media/pdfs/VisionAndEyeHealthGuide508.pdf
4. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_892937.pdf
5. https://www.aoa.org/healthy-eyes/caring-for-your-eyes/protecting-your-vision

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	1	2	2	2	2	2	3	2	2	3	2	2	3
CO2	3	2	3	3	3	1	2	2	2	1	2	2	3	3
CO3	2	1	2	2	2	2	2	2	1	2	2	2	2	3
CO4	2	2	2	2	2	2	3	3	2	2	3	2	2	3

Program	Bachelor of Optometry				
Year	II	Semester		IV	
Course Name	Specialised Optometry II Lab				
Code	BOP 402P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objectives	Understand normal and abnormal visual development in children. Identify and manage common pediatric eye conditions. Conduct pediatric vision assessment and communicate with families. Recognize, manage major geriatric eye diseases and provide basic low vision rehabilitation and counseling for elderly patients.				
Course Outcomes					
CO1	To assess distance and near visual acuity using standard charts.				
CO2	To identify ocular alignment issues using a simple method.				
CO3	Practice communication for pediatric eye care				

S. No.	List of Experiments	
1	Vision Screening Using Snellen and Near Vision Charts	CO1
2	Cover-Uncover Test for Detecting Strabismus	CO2
3	Parent Counseling Role Play	CO3

Suggested Readings

1. Scheiman, M. and B. Wick. 2014. Clinical Management of Binocular Vision: Heterophoric, Accommodative, and Eye Movement Disorders. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins.
2. Kanski, J.J. and B. Bowling. 2015. Clinical Ophthalmology: A Systematic Approach. 8th ed. Philadelphia, PA: Elsevier Saunders.
3. Swami Vivekananda University. 2023. Pearls of Clinical Optometry: A Complete Guide to Optometric Practice. Kolkata, India: Swami Vivekananda University Press

Online Resources

1. https://www.aao.org/eye-health/tips-prevention/baby-vision-development-first-year
2. https://www.aoa.org/healthy-eyes/eye-health-for-life/infant-vision
3. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/low-vision
4. https://www.cdc.gov/visionhealth/index.html

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	2	2	1	-	2	2	1	1	2	3	3
CO2	3	2	3	2	2	1	1	2	2	1	1	2	3	3
CO3	1	-	-	-	-	-	1	3	3	-	1	2	1	3

Program	Bachelor of Optometry				
Year	III	**Semester**	V		
Course Name	Off Campus Internship I				
Code	BOP 501P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	24	12
Course Objective	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	III	**Semester**	V		
Course Name	On the Job Training I				
Code	BOP 502P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	12	6
Course Objective	The objective of the on the job training is for the students to gain practical experience in a workplace setting to improve their understanding of the topic.				

Program	Bachelor of Optometry				
Year	III	**Semester**	V		
Course Name	Summer Internship				
Code	BOP 503P				
Course Type	DSC	**L**	**T**	**P**	**Credit**
Pre-Requisite		0	0	4	2
Course Objectives	The objective of the summer internship is for the students to gain real-world experience to prepare them for their careers.				

Program	Bachelor of Optometry				
Year	III	Semester	VI		
Course Name	Off Campus Internship II				
Code	BOP 601P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	24	12
Course Objectives	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	III	Semester	VI		
Course Name	On the Job Training II				
Code	BOP 602P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	12	06
Course Objectives	The objective of the on the job training is for the students to gain practical experience in a workplace setting to improve their understanding of the topic.				

Program	Bachelor of Optometry				
Year	III	Semester		VI	
Course Name	Internship				
Code	BOP 603P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objectives	The objective of the internship is for the students to gain practical experience that will equip them for their future careers.				

Program	Bachelor of Optometry				
Year	IV	Semester	VII		
Course Name	Off Campus Internship III				
Code	BOP 701P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	24	12
Course Objectives	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	IV	Semester	VII		
Course Name	On the Job Training III				
Code	BOP 702P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	16	08
Course Objective	The objective of the on the job training is for the students to gain practical experience in a workplace setting to improve their understanding of the topic.				

Program	Bachelor of Optometry				
Year	IV	Semester		VIII	
Course Name	Off Campus Internship IV				
Code	BOP 801P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	16	08
Course Objective	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	IV	Semester		VIII	
Course Name	Off Campus Internship V				
Code	BOP 802P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	4
Course Objective	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	IV	Semester		VIII	
Course Name	Off Campus Internship VI				
Code	BOP 803P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	04
Course Objective	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				

Program	Bachelor of Optometry				
Year	IV	Semester		VIII	
Course Name	Off Campus Internship VII				
Code	BOP 804P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	04
Course Objective	The objective of the off campus internship is to enable the students to get hands-on experience with the various tools and techniques required for their job role.				