Era University

CURRICULUM & EVALUATION SCHEME

OF

BACHELOR OF OPTOMETRY (B.OPTOM)

[APPLICABLE W.E.F. ACADEMIC SESSION 2023-27**]**

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About Optometry:

The Ministry of Health and Family Welfare, accepted in its entirety the definition of an allied and healthcare professional based on the afore-mentioned report, though the same has evolved after multiple consultations and the recommended definition is now as follows-

> 'Allied and healthcare professionals (AHPs) includes individuals involved with the delivery of health or healthcare related services, with qualification and competence in therapeutic, diagnostic, curative, preventive and/or rehabilitative interventions. They work in multidisciplinary health teams in varied healthcare settings including doctors (physicians and specialist), nurses and public health officials to promote, protect, treat and/or manage a person('s) physical, mental, social, emotional, environmental health and holistic well-being.'

Since the past few years, many professional groups have been interacting and seeking guidance on all those who would qualify under the purview of "allied and healthcare professionals". In the healthcare system, statutory bodies exist for clinicians, nurses, pharmacists and dental practitioners; but a regulatory structure for around 50 professions is absent in India. Currently, the Government is considering these professions (as listed Annex-1) under the ambit of the allied and healthcare system. However, this number is subject to changes and modifications over time, particularly considering how quickly new technologies and new clinical avenues are expanding globally, creating newer cadres of such professionals.

Scope and Need for Allied and Healthcare Professionals in the Indian Healthcare System

The quality of medical care has improved tremendously in the last few decades due to the advances in technology, thus creating fresh challenges in the field of healthcare. It is now widely recognized that health service delivery is a team effort involving both clinicians and non-clinicians, and is not the sole duty of physicians and nurses.1Professionals that can competently handle sophisticated machinery and advanced protocols are now in high demand. In fact, diagnosis is now so dependent on technology, that allied and healthcare professionals (AHPs) are vital to successful treatment delivery.

Effective delivery of healthcare services depends largely on the nature of education, training and appropriate orientation towards community health of all categories of health personnel, and their capacity to function as an integrated team. For instance in the UK, more than 84,000 AHPs, with a range of skills and expertise, play key roles within the National Health Service, working autonomously, in multi-professional teams in various settings. All of them are first-contact practitioners and work across a wide range of locations and sectors within acute, primary and community care. Australia's health system is managed not just by their doctors and nurses, but also by the 90,000 university-trained, autonomous AHPs vital to the system.

As the Indian government aims for Universal Health Coverage, the lack of skilled human resource may prove to be the biggest impediment in its path to achieve targeted goals. The benefits of having AHPs in the healthcare system are still unexplored in India. Although an enormous amount of evidence suggests that the benefits of AHPs range from improving access to healthcare services to significant reduction in the cost of care, though the Indian healthcare system still revolves around the doctor-centric approach. The privatization of healthcare has also led to an ever-increasing out-of-pocket expenditure by the population. However, many examples assert the need of skilled allied and healthcare professionals in the system, such as in the case of stroke survivors, it is the support of AHPs that significantly enhance their rehabilitation and long term treatment ensures return to normal life. AHPs also play a significant role to care for patients who struggle mentally and emotionally in the current challenging environment and require mental health support; and help them return to well-being. Children with communication difficulties, the elderly, cancer patients, patients with long term conditions such as diabetes people with vision problems and amputees; the list of people and potential patients who benefit from AHPs is indefinite.

Thus, the breadth and scope of the allied and healthcare practice varies from one end to another, including areas of work listed below:
Across the age span of human development from neonate to old age;

With patients having complex and challenging problems resulting from systemic illnesses such as, in the case of diabetes, cardiac abnormalities/conditions and elderly care to name a few;

Towards health promotion and disease prevention, as well as assessment, management and evaluation of interventions and protocols for treatment;

In a broad range of settings from a patient's home to community, primary care centers, to tertiary care settings; and

With an understanding of the healthcare issues associated with diverse socio-economies and cultural norms within the society.

Learning Goals And Objectives For Allied And Healthcare Professionals

The handbook has been designed with a focus on performance-based outcomes pertaining to different levels. The learning goals and objectives of the undergraduate and graduate education program will be based on the performance expectations. They will be articulated as learning goals (why we teach this) and learning objectives (what the students will learn). Using the framework, students will learn to integrate their knowledge, skills and abilities in a hands-on manner in a professional healthcare setting. These learning goals are divided into nine key areas, though the degree of required involvement may differ across various levels of qualification and professional cadres:

1. Clinical care
2. Communication
3. Membership of a multidisciplinary health team
4. Ethics and accountability at all levels (clinical, professional, personal and social)
5. Commitment to professional excellence
6. Leadership and mentorship
7. Social accountability and responsibility
8. Scientific attitude and scholarship (only at higher level- PhD)
9. Lifelong learning

ERA UNIVERSITY

Study of Evaluation Scheme
Of
Bachelor of Optometry (B.Optom)

Programme : **Bachelor of Optometry(**B.optom)

Duration : Four years Full time(Eight semesters)
Including one year compulsory Internship

Medium : English

Minimum Required Attendance : 75%

Total Credits **: 200**

Assessment :

Internal	External	Total
30	70	100

Internal Evaluation (Theory Papers):

Class Presentation	Care Marks	Attendance	Assignment	Mid Term Exam	Total
04	06	04	04	12	30

Evaluation of Practical/Dissertations & Project Reports:

Internal	External	Total
30	70	100

Duration of Examination:

Internal	External
01 Hrs	03 Hrs

To qualify a course/subject the student is required to secure a minimum of 40% marks in aggregate including the semester examination and teachers continuous evaluation. (i.e. both internal and external). A candidate who secures less than 40% of marks in a course shall be deemed to have failed in that course. The student should have secured at least 50% marks in aggregate to clear the semester. The subject marked with asterisk (*) in Semester-I &II are noncore papers.

Eligibility for admission:

Selection procedure:

1. He/she has passed the Higher Secondary (10+2) or equivalent examination recognized by any Indian University or a duly constituted Board with pass marks in Physics, Chemistry, Biology

OR

Diploma in Optometry after completing 12th class/ 10 +2 of CBSE or equivalent with minimum aggregate of 50% marks in physics chemistry and biology provided the candidate has passed in each subject separately.

2. Candidates who have studied abroad and have passed the equivalent qualification as determined by the Association of Indian Universities will form the guideline to determine the eligibility and must have passed in the subjects: Physics, Chemistry, Biology and English up to 12th Standard level.
3. Candidates who have passed the Senior Secondary school Examination of National Open School with a minimum of 5 subjects with any of the following group subjects.

A. English, Physics, Chemistry, Botany, Zoology

B. English, Physics, Chemistry, Biology and any other language

4. He/she has attained the age of 17 years as on - (current year) & maximum age limit is 30 years.
5. He/she has to furnish at the time of submission of application form, a certificate of Physical fitness from a registered medical practitioner and two references from persons other than relatives testifying to satisfactory general character.
6. Admission to B.Opto course shall be made on the basis of eligibility and an entrance test to be conducted for the purpose. No candidate will be admitted on any ground unless he/she has appeared in the admission test and interview.

A. Entrance test, to be conducted by the university as per the syllabus under 10 +2 scheme of CBSE, subject-wise distribution of questions will be as 30% in Physics, 30% in biology, 30% in Chemistry, 5% in English (Language & Comprehension) and 5% in General Awareness about health related methods.

B. . Successful candidates on the basis of written Test will be called for the interview & shall have face an interview board. The interview board will include the Head of the Department of medical imaging (Chairman of the Board) along with the Principal / chief faculty as well

as Chief of MRIT apart from other nominees, whose recommendations shall be final for the selection of the students..

C. During subsequent counseling (s) the seat will be allotted as per the merit of the candidate depending on the availability of seats on that particular day.

D. Candidate who fails to attend the Medical Examination on the notified date(s) will forfeit the claim for admission and placement in the waiting list except permitted by the competent authority under special circumstances.

E. The name of the student(s) who remain(s) absent from classes for more than 15 days at a stretch after joining the said course will be struck off from the college rolls without giving any notice.

Provision of Lateral Entry:

Lateral entry to second year for allied and healthcare science courses for candidates who have passed diploma program from the Government Boards and recognized by State/Central University, fulfilling the conditions specified and these students are eligible to take admission on lateral entry system only if the same subject have been studied at diploma level.

Duration of the course

Duration of the course: 4 years or 8 semesters including1440 hours of internship.

Medium of instruction:

English shall be the medium of instruction for all the subjects of study and for examination of the course.

General information:

1. **Attendance:**

A candidate has to secure minimum 80% attendance in overall with at least-

A. 75% attendance in theoretical

B. 75% in Skills training (practical) for qualifying to appear for the final examination.

No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition etc.

2. **Assessment:**

Assessments should be completed by the academic staff, based on the compilation of the student's theoretical & clinical performance throughout the training programme. To achieve this, all assessment forms and feedback should be included and evaluated. Student must

attain at least 40% marks in each Theory, Internal assessment and Practical independently / separately for each individual subject.

>70% Distinction

60%-First Division

50-59% Second Division

40-49% Third Division

3. Aggregate passing marks 40%.
4. Practical exam must be completed within 15 days after the theory exam.
5. 15 Days summer vacation and 7 days winter vacation.
6. A candidate who is fails in all subject will be termed as year back and if candidate passes in 50% of subject then he will be promoted in next semester and if candidate passes his/her in all subject then it will be termed as all clear.
7. Abbreviation used:

   L- Lecture

   P-Practical

   T-Tutorial

   H-Hospital posting

INTERNSHIP

Internship is a phase of training where a student is expected to conduct actual practice of clinical optometry and acquire skills under supervision so that he/she may become capable of functioning independently.

INTERNSHIP DURATION: ONE YEAR

Every candidate will be required after successfully completing the final Bachelor in Optometry Examination, to undergo compulsory rotator internship to satisfaction of the University for a period of 6 months so as to be eligible for the award of the degree.

The University shall issue a provisional degree of Bachelor in Optometry on passing the final examination after the completion of internship on demand by the candidate.

The internee shall be entrusted with optometry responsibilities under direct supervision of Senior Optometrist. They shall not be working independently.

Internee will not issue certified copy of investigation reports or other related documents under their signature.

ASSESMENT OF INTERNSHIP

The Internee shall maintain the record of work, which is to be verified and certified by the senior Optometrist under whom he/she works. Apart from scrutiny of record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during at the end of training. Based on the record of work and date of evaluation The Director/Principal shall issue certificate for satisfactory completion of training following which the university shall award the degree of Bachelor in Optometry to the candidate.

- Satisfactory completion shall be determined on the basis of the following.
- Proficiency of knowledge required for each Optometry techniques.
- The competency and skills expected to manage each optometry technique.
- Responsibility, punctuality works up of optometry techniques, involvement in special procedures and preparation of reports.
- Capacity to work in a team (behavior with colleagues, nursing staff and relationship with medical and paramedical).
- Initiating, **participating** in discussions and developing research aptitude.

- Only 12 leaves are allowed to an internee during the period of his/her internship. If he/she extend his/her leave in the duration of internship, the period the internship shall be extended by double the days for which the student was absent.

Leave Rule

Summer Vacation: - 15 Days

Winter Vacation: - 7 Days

Preparation Leave: - 7 Days

Internship Log Book

The Log Book Submitted by the candidate will be duly verified & a viva voce shall be conducted on the same at the time of Practical Examination of final year.

S.N.	TOPIC	NO. OF CASES
1	Clinical Observation and Report writing	5
2	Visual Acuity – Distance + Near	5
3	History taking General Specific Conditions	5
4	Visual Acuity – Distance + Near (log MAR) Pinhole acuity	5
5	Extra ocular Motility	5
6	Cover test	5
7	Push up test (Amplitude of Accommodation)	5
8	Push up test (Near point of Convergence)	5
9	Stereopsis test	5
10	Tear Break up time	5
11	Amsler's Grid test	5
12	Color vision test	5
13	Schirmer's test	5
14	Confrontation visual field test	5
15	Slit lamp examination	5
16	Digital tonometry	5
17	Schiotz Tonometry	5
18	Von Herick Grading of Anterior chamber depth	5
19	Accommodative facility(+ 2.00 D)	5
20	Corneal Sensitivity test	5
21	IPD measurement	5
22	Proptosis evaluation	5
23	Ptosis evaluation	5
24	Pupillary evaluation Direct Consensual RAPD	5
25	Maddox rod (Phoria)	5

26	Retinoscopy- Static, Dynamic and Cycloplegic Retinoscopy	5
27	Keratometry	5
28	Subjective Refraction JCC Duo chrome	5
29	Visual Field chart interpretation	5
30	B scan observation	5
31	A scan chart Interpretation	5
32	Case Analysis	5
33	Contact Lens	5
34	Low Vision care Clinic	5
35	Binocular Vision clinic	5
36	Ophthalmology clinic (Common eye conditions)	10

Programme Structure 2023

Bachelor of Optometry (Total Credits -

B.Optom Semester- I (First Year)

First Semester

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	General Anatomy	BOT-101	03	03	30	70	100
2.	General Physiology	BOT-102	03	03	30	70	100
3.	General Biochemistry	BOT-103	02	02	30	70	100
4.	Geometrical Optics-I	BOT-104	03	03	30	70	100
5.	Nutrition	BOT-105	02	02	30	70	100
6.	English & Communication Skill	ENG-101	02	02	30	70	100
	Total		**15**	**15**	**180**	**420**	**600**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	General Anatomy	BOP-101	02	01	30	70	100
2.	General Physiology	BOP-102	02	01	30	70	100
3.	General Biochemistry	BOP-103	02	01	30	70	100
4.	Geometrical Optics-I	BOP-104	02	01	30	70	100
	Total		**08**	**04**	**120**	**280**	**400**

B.Optom Semester- II (First Year)

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Ocular Anatomy	BOT-201	03	03	30	70	100
2.	Ocular Physiology	BOT-202	03	03	30	70	100
3.	Ocular Biochemistry	BOT-203	02	02	30	70	100
4.	Geometrical Optics-II	BOT-204	03	03	30	70	100
5.	Physical Optics	BOT-205	02	02	30	70	100
6.	Basic of Computers	BOT-206	02	02	30	70	100
	Total		**15**	**15**	**180**	**420**	**600**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Clinical Optometry-I	BOP-201	06	03	30	70	100
2.	Basic of Computers	BOP-202	02	01	30	70	100
	Total		**08**	**04**	**60**	**140**	**200**

B.Optom Semester- III (Second Year)

Third Semester

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Ocular Microbiology	BOT-301	02	02	30	70	100
2.	Visual Optics-I	BOT-302	02	02	30	70	100
3.	Optometric Optics-I	BOT-303	02	02	30	70	100
4.	Optometric Instruments	BOT-304	02	02	30	70	100
5.	Ocular Disease-I	BOT-305	03	03	30	70	100
6.	Clinical Examination of Visual System	BOT-306	02	02	30	70	100
7.	Indian Medicine & Tele Medicine	BOT-307	02	02	30	70	100
	Total		**15**	**15**	**210**	**490**	**700**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Clinical Optometry-II	BOP-301	06	03	30	70	100
	Total		**06**	**03**	**30**	**70**	**100**

B.Optom Semester- IV (Second Year)

Fourth Semester

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Optometric Optics-II & Dispensing Optics	BOT-401	02	02	30	70	100
2.	Visual Optics-II	BOT-402	03	03	30	70	100
3.	Ocular Disease-II	BOT-403	03	03	30	70	100
4.	Pathology	BOT-404	02	02	30	70	100
5.	Basic & Ocular Pharmacology	BOT-405	03	03	30	70	100
6.	Introduction to Quality & Patient Safety	BOT-406	02	02	30	70	100
7.	Medical Psychology	BOT-407	02	02	30	70	100
	Total		**17**	**17**	**210**	**490**	**700**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Clinical Optometry-III	BOP-408	08	04	30	70	100
	Total		**08**	**04**	**30**	**70**	**100**

B. Optom Semester- V (Third Year)

Fifth Semester

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Contact Lens-I	BOT-501	03	03	30	70	100
2.	Low Vision Care	BOT-502	02	02	30	70	100
3.	Geriatric & Paediatric Optometry	BOT-503	03	03	30	70	100
4.	Binocular Vision-I	BOT-504	03	03	30	70	100
5.	Systemic Disease	BOT-505	03	03	30	70	100
6.	Research Methodology & Biostatistics	BOT-506	03	03	30	70	100
	Total		**17**	**17**	**180**	**420**	**600**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Clinical Optometry-IV	BOP-501	08	04	30	70	100
	Total		**08**	**04**	30	70	**100**

B.Optom Semester- VI (Third Year)

Sixth Semester

s.no.	Subjects (Theory)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Contact Lens-II	BOT-601	03	03	30	70	100
2.	Binocular Vision-II	BOT-602	03	03	30	70	100
3.	Public Health & Community Optometry	BOT-603	02	02	30	70	100
4.	Practice Management	BOT-604	02	02	30	70	100
5.	Occupational Optometry	BOT-605	02	02	30	70	100
6.	Optometric Law & Ethics	BOT-606	02	02	30	70	100
	Total		**14**	**14**	**180**	**420**	**600**

s.no.	Subjects (Practical)	Paper code	Hrs. per Week		Maximum Marks		
			Actual	Credit	I.A.	Exam	Total
1.	Clinical Optometry-V	BOP-601	08	04	30	70	100
2.	Research Project	BOP-603	03	03	30	70	100
	Total		**11**	**07**	**60**	**140**	**200**

EIGHTH SEMESTER (INTERNSHIP - II)

CLINIC – VII (COMPREHENSIVE EYE CARE & REFRACTION)

Course Code: BOP- 801 **Credit Units: 15**

Objectives: It is expected that upon completion the student will be able to carry out the standard clinical procedures especially refraction efficiently and safely.

Course outline:

Upon completion of the course the student must be able to

Module 1. Take down a comprehensive history –

Must be able to communicate effectively with the patient, taking into account his/her physical, emotional, intellectual and cultural background – building a rapport

Must be able to take a structured, efficient, accurate history and symptoms from patients with a range of ophthalmic problems and needs

Must be able to produce comprehensive, legible and organised record keeping with appropriate detail and grading

Must be able to interpret and respond appropriately to patient records and other relevant information

Module 2. Do a complete and proper refraction

Visual acuity estimation.

Must be able to measure visual function of patients of any age with appropriate tests and techniques

Must be able to assess visual function in patients with visual impairment

Lensometry

Retinoscopy

Refraction procedures

Must be able to use subjective and objective techniques to identify and quantify ametropia

Module 3.Do a torch light examination.

Hirschberg test

Module 4. Do a binocular vision assessment

Ocular motility , cover test

Must be able to assess eye alignment and eye movements

Near point of accommodation, Near point of convergence

Module5. Do a detailed binocular vision assessment if required in particular cases as per the format given in binocular vision syllabus

Module 6. Do a pupil evaluation with torch light

Module 7. Use a slit lamp to do a complete anterior segment examination and posterior segment as required

Must be able to examine for abnormalities in eye and adnexa especially eyelid, conjunctiva, cornea, anterior chamber, lens and fundus using appropriate instruments and techniques

Must be able to interpret signs and symptoms of ocular abnormality

Must be able to perform applanation tonometry and non contact tonometry

8. Must be able to take the decision to dilate the eye as per need

Must be able take the decision to use appropriate ocular drugs diagnostically and to aid refraction and fundus examination**.**

Must be able to give a preliminary diagnosis

During management the student must be able to advice on, order and be able to dispense the most suitable form of optical correction taking into account durability, comfort, cosmetic appearance, age and lifestyle.

CLINIC – VII (OPTOMETRIC PROCEDURES & INSTRUMENTS)

This course deals with complete theory and practical experience in all basic tests, instrumentation and procedures necessary to evaluate the ocular health status of a patient.. The topics include complete optometric procedures and instruments taught in the previous semesters like case history, , gross external examination of the eye and adnexa, pupil and muscle functions, anterior and posterior segment examination, tonometry, visual acuity, and visual fields assessment and so on .

The objective of this course is to apply all theoretical knowledge into examination and optometric management of the patient with ocular problems.

The student should learn to operate all instruments and be able to carry out all ophthalmic procedures .

Evaluation Scheme:

The final evaluation is based on the Clinical skill evaluation practical exam the candidate will be asked to examine a patient with all details. This examination will primarily measures skills, it contains an assessment, management and communication skills, as well as some interpretation of clinical findings.

It will be assessing the competence of individual optometrists in the practice of optometry

Evaluation Scheme:

Attendance	**Record file** **Log book**	**practical**	**Written test**	**viva**	**Total**
10	**20**	**20**	**30**	**20**	**100**

The study centre will form an integral part of the evaluation and will be based on the regular performance and participation in grand rounds .discussions and presentations ,

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The study centre will form an integral part of the evaluation and will be based on the regular performance and participation in grand rounds .discussions and presentations ,

Text book/ Reference Book

- Grosvenor, Primary Care Optometry , Butterworth-Heinemann,
- A K Khurana: Comprehensive Ophthalmology, 4th edition, New age international (p) Ltd. Publishers, New Delhi, 2007
- D B. Elliott :Clinical Procedures in Primary Eye Care,3rd edition, Butterworth-Heinemann, 2007
- BHVI modules

PROJECT – DISSERTATION

Course code: BOP-802 **Credit Units: 15**

The project evaluation will include assessment at the end of third year (synopsis submission). Midterm review (at the end of 7th semester)

Weightage will be as follows
Synopsis submission = 20% (end of sixth semester)
Mid term review = 30 % (end of seventh semester)
Final submission and presentation = 50%

Chapter Scheme and distribution of marks: (submission at end semester)

Chapter 1: Introduction – 10 marks

Chapter 2: Conceptual Framework and literature review – 25 marks

Chapter 3: Presentation, Analysis & Findings -- 25 marks

Chapter 4: Conclusion & Recommendations -- 10 marks

Chapter 5: Bibliography -- 05 marks

Project Report	Power Point Presentation & Viva
75 marks	25 marks

Components of a Project Report

The outcome of Project Work is the Project Report. A project report should have the following components:

1) Cover Page: This should contain the title of the project proposal, to whom it is submitted, for which degree, the name of the author, name of the supervisor, year of submission of the project work, name of the University.

2) Acknowledgement: Various organizations and individuals who might have provided assistance /co-operation during the process of carrying out the study.

3) Table of Content: Page-wise listing of the main contents in the report, i.e., different Chapters and its main Sections along with their page numbers.

4) *Abstract*: The body of the report should have summary of the project.

a) *Introduction:* This will cover the background, rationale/ need / justification, brief review of literature, objectives, methodology (the area of the study, sample, type of study, tools for data collection, inclusion & exclusion criteria and method of analysis), Limitations of the Study, and Planning.

b) *Conceptual Framework / National and International Scenario*: (relating to the topic of the Project).

c) Presentation of Data, Analysis and Findings

d) *Conclusion and Recommendations:* In this section, the concluding observations based on the main findings and suggestions are to be provided.

5) Bibliography or References: This section will include the list of books and articles which have been used in the project work, and in writing a project report.

6) Annexure: Questionnaires (if any), relevant reports, etc.

(The main text of the Project should normally be in the range of 5000 words. However, there may be annexure in addition to the main text)

The Steps of a Project Report

Step I: Selection of the topic for the project by taking following points into consideration:

- Suitability of the topic.
- Relevance of the topic
- Time available at the disposal.
- Feasibility of data collection within the given time limit.
- Challenges involved in the data collection (time & cost involved in the data collection, possibility of getting responses, etc.)

Step II: Finalisation of the Topic and preparation of Project Proposal in consultation with the Supervisor.

Step III: Collection of information and data relating to the topic and analysis of the same.

Step IV: Writing the report dividing it into suitable chapters, viz.,

Chapter 1: Introduction,

Chapter 2: Methodology,

Chapter 3: Analysis & Findings

Chapter 4: Conclusion and Recommendations.

Step V: The following documents are to be attached with the Final Project Report.

1) Approval letter from the supervisor (Annexure-IA)
2) Student's declaration (Annexure-IB)
3) Certificate from the Competent Authority of the Organisation / Institution, if the student undertakes the Project Work in any Organisation / Institution.

Guidelines for evaluation:

- Each of the students has to undertake a Project individually under the supervision of a teacher and to submit the same following the guidelines stated below.
- Language of Project Report and Viva-Voce Examination may be English. The Project Report must be typed and hard bound.
- Failure to submit the Project Report or failure to appear at the Viva-voce Examination will be treated as "Absent" in the Examination. He /she has to submit the Project Report and appear at the Viva-Voce Examination in the subsequent years (within the time period as per University Rules).
- No marks will be allotted on the Project Report unless a candidate appears at the Viva-Voce Examination. Similarly, no marks will be allotted on Viva-Voce Examination unless a candidate submits his/her Project Report.
- Evaluation of the Project Work to be done jointly by one internal expert and one external expert with equal weightage, i.e., average marks of the internal and external experts will be allotted to the candidate.

Integrative Seminar during the internship

It serves to teach optometry students how the material in the curriculum relates to their role as optometrist . This will be achieved through a synthesis of lecture, clinical observation, case-based learning and small-group discussion. Once a week, the entire class will attend a one-hour lecture with topics reflective of the ongoing course material being presented in other courses. For two additional hours per week, small seminar group observation and discussion will take place. The seminar meetings will reinforce the lecture concepts through clinical observation and case discussions relating to those observations. Lecture and small-group discussions will include the participation of both basic and clinical science faculty in order to promote integration of the curricular material and to show how the care provided is related to what is currently being learned. This will enable the future clinician to make informed clinical decisions, encourage critical thinking and promote lifelong independent learning.

Integrative Seminar

Is designed to facilitate the student's transition into clinical internship by using an integrative approach. The course builds upon past Integrative Seminars, providing the student with an environment leading to the development of informed clinical decision making, critical thinking and lifelong independent learning. The student gains a foundation for optometric practice by learning to employ scientific knowledge, utilization of informational resources, doctor-patient interactive skills and clinic participation to form the basis of an individualized patient evaluation, assessment and plan. This will be achieved through a synthesis of group teaching, case-based learning, small-group discussion and clinical experience. Group discussions will include the participation of both basic and clinical science faculty to foster integration of curricular material. As a means of entry into clinical practice, the highest standards of professional conduct and responsibility will be emphasized throughout the course.

The interns are required to complete one quarter of senior seminar.

The seminar meets over four hours each week to provide a small group-learning environment focused on clinical case presentations derived from the participants' clinical experience.

This grand-rounds format will provide a basis for integration and critical analysis of current clinical research with the goal of increasing the participants' understanding, use and communication of evidence-based clinical information.

----------THE END----------