

STUDY & EVALUATION SCHEMES
OF
BACHELOR OF OPTOMETRY (BO)
(BO – VI SEMESTER)

[Applicable w.e.f. Academic Session 2020-21]



INTEGRAL UNIVERSITY, LUCKNOW
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Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

INTEGRAL UNIVERSITY, LUCKNOW
INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH
DEPARTMENT OF PARAMEDICAL & HEALTH SCIENCES

STUDY & EVALUATION SCHEME
BACHELOR OF OPTOMETRY (BOPT)
(w.e.f. July 2020)

III -Year

VI-Semester

S. No	Code	Name of the Subject	Periods			Credits	Evaluation Scheme				Subject Total
			L	T	P		Sessional		Exam		
							CT	TA	Total	ESE	
1.	BO309	Contact Lens – II	3	1	0	4	25	15	40	60	100
2.	BO310	Binocular Vision – II	3	1	0	4	25	15	40	60	100
3.	BO311	Practice Management	3	1	0	4	25	15	40	60	100
4.	BO312	Research Methodology & Biostatistics	2	1	0	3	25	15	40	60	100
5.	BO313	Contact Lens II–Lab	0	0	2	1	30	30	60	40	100
6.	BO314	Binocular Vision – II_Lab	0	0	2	1	30	30	60	40	100
7.	BO315	Research Project Proposal-Lab	0	0	2	1	30	30	60	40	100
8.	BO316	Hospital Posting	0	0	8	4	30	30	60	40	100
Total			11	04	14	22	220	180	400	400	800

L: Lecture

T: Tutorials

P: Practical

C: Credit

CT: Class Test

TA: Teacher Assessment

ESE: End Semester Examination

Sessional Total: Class Test + Teacher Assessment

Subject Total: Sessional Total + End Semester Examination (ESE)

SUBJECT NAME: CONTACT LENS- II

Subject Code: BO309

(w.e.f July 2020)

**L T P
3 1 0**

Learning objective: To enable the students to have knowledge in both theoretical and practical aspects of Contact Lenses.

UNIT-I:

Introduction to soft Contact lenses, Advantages of SCL, Comparison of RGP vs. SCL, Selection of Parameters, Properties of various SCL materials.

UNIT-II:

Pre fitting evaluation of SCL, Fitting philosophies for SCL, Characteristics of types of fit. (steep, flat, optimal), Fit assessment in Soft Contact Lenses (steep, flat, optimal), After care & follow up (Do's and Don'ts), Market availability of SCL.

UNIT-III:

Different type of stabilization technique & its characteristics, Fitting assessment of Toric SCL, MPS and its major components, Market availability of Toric lens.

UNIT-IV:

Complications of SCL (etiology, signs, symptoms and managements), Therapeutic CL (definition, Applications, fitting, after care), X-Chrome lens.

UNIT-V:

Specialty contact lens, Pediatric Contact Lenses, Multifocal SCL, Ortho-k lens, Rose K lens, Scleral & semi-scleral.

RECOMMENDED BOOKS:

- * Latest editions of all the suggested books are recommended.

SUBJECT NAME: BINOCULAR VISION – II

SUBJECT CODE: BO310

(w.e.f July 2020)

L T P

3 1 0

Learning objective- The objective of this course is to inculcate the student with the knowledge of different types of strabismus, its etiology, clinical features, necessary investigations and management.

UNIT-I:

- Neuro-muscular anomalies- Classification and etiological factors, History – recording and significance.

UNIT-2:

- **Convergent strabismus-** Accommodative convergent squint- Classification, Investigation and Management, Non accommodative Convergent squint- Classification, Investigation and Management, **Divergent Strabismus-**Classification, A& V phenomenon, Investigation and Management.

UNIT-3:

- **Vertical strabismus-**Classification, Investigation and Management, **Paralytic Strabismus--**Classification, Investigation and Management, Distinction from comitant and restrictive Squint.

UNIT-4:

- **Investigations:** History and symptoms, Head Posture, Diplopia Charting, Hess chart, PBCT, Nine directions, Binocular field of vision, Amblyopia and Treatment of Amblyopia, Nystagmus.,

UNIT-5:

- Non-surgical Management of Squint, Restrictive Strabismus, Features, Musculo-fascial anomalies, Duane's Retraction syndrome, Clinical features and management, Brown's Superior oblique sheath syndrome, Strabismus fixus, Congenital muscle, fibrosis, Surgical management.

Text Books:

1. Gunter K. VonNoorden: BURIAN- VON NOORDEN'S Binocular vision and ocular motility theory and management of strabismus, Missouri, Second edition, 1980, C. V. Mosby Company.

* Latest editions of all the suggested books are recommended

SUBJECT NAME: PRACTICE MANAGEMENT

SUBJECT CODE: BO311

(w.e.f July 2020)

L T P
3 1 0

Learning objective-The objective of this course is to provide knowledge regarding business, accounting, taxation, professional values, and quality and safety aspects of optometry practice management.

UNIT-I:

- Business Management: Practice establishment and development, Stock control and costing, Staffing and staff relations, Business computerization.

UNIT -2:

- Accounting Principles, Sources of finance, Bookkeeping and cashflow.

UNIT-3:

- Taxation and taxation planning.

UNIT -4:

- Professionalism and Values, Professional values- Integrity, Objectivity, Professional competence and due care, Confidentiality.

UNIT-5:

- Personal values- ethical or moral values, Attitude and behavior- professional behavior, treating people equally, Code of conduct, professional accountability and responsibility, misconduct, Differences between professions and importance of team efforts, Cultural issues in the healthcare environment.

Text Books:

1. Faculty to recommend

*** Latest editions of all the suggested books are recommended.**

SUBJECT NAME: Research Methodology & Biostatistics

SUBJECT CODE: BO312

(w.e.f July 2020)

L T P
3 1 0

LEARNING OBJECTIVE- The objective of this module is to help the students understand the basic principles of research and methods applied to draw inferences from the research findings. The students will also be made aware of the need of biostatistics and understanding of data, sampling methods, in addition to being given information about the relation between data and variables.

UNIT-I:

- Research Methodology: Introduction to research methods, identifying research problem. Ethical issues in research- Research design, Basic Concepts of Biostatistics.

UNIT-II:

- Types of Data- Research tools and Data collection methods, Sampling methods, Developing a research proposal.

UNIT-III:

- Biostatistics: Need of biostatistics, what is biostatistics: beyond definition, Understanding of data in biostatistics, how & where to get relevant data, Relation between data & variables.
Type of variables: defining data set, Collection of relevant data: sampling methods.

UNIT-IV:

- Normal Distribution, Standard deviation, Standard errors. Coefficient of Variation, t-test, Chi square test.

UNIT-V:

- Construction of study: population, sample, normality and its beyond (not design of study, perhaps) ,Summarizing data on the pretext of underlined study.

Understanding of statistical analysis (not methods)

SUGGESTED READINGS

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

SUBJECT NAME: CONTACT LENS- II LAB
SUBJECT CODE: BO313
(w.e.f July 2020)

L T P
0 0 2

1. Examination of old soft Lens
 2. RGP Lens fitting
 3. RGP Lens Fit Assessment and fluroscein pattern
 4. Special RGP fitting (Aphakia, pseudo phakia&Keratoconus)
 5. RGP over refraction and Lens flexure
 6. Examination of old RGP Lens
 7. RGP Lens parameters
 8. Fitting Cosmetic Contact Lens
 9. Slit lamp examination of Contact Lens wearers
 10. Fitting Toric Contact Lens
 11. Bandage Contact Lens
 12. SPM &Pachymetry at SN During Clinics
- Specialty Contact Lens fitting (at SN during clinics)

SUBJECT NAME: BINOCULAR VISION – II LAB
SUBJECT CODE: BO314
(w.e.f July 2020)

L T P
0 0 2

Course Content:

1. Deals with hand-on session the basic of binocular vision evaluation techniques.

SUBJECT NAME: RESEARCH PROJECT PROPOSAL- LAB

SUBJECT CODE: BO315

(w.e.f July 2020)

L T P

0 0 2

Course Content:

- Team of students will be doing a research project under the guidance of a supervisor (who could be optometrists/vision scientists/ ophthalmologist). Student will get the experience of doing a research in systematic approach – identifying the primary question, literature search, identifying the gaps in the literature, identifying the research question, writing up the research proposal, data collection, data analysis, thesis writing and presentation
- Project is spread through sixth to eighth semester.

SUBJECT NAME: HOSPITAL POSTING LAB
SUBJECT CODE: BO316
(w.e.f July 2020)

L T P
0 0 8

Course Content:

- The course is the final series of five directed clinical courses. The student will complete the clinical training by practicing all the skills learned in classroom and clinical instruction. Practical aspects of Binocular vision II, public health & community optometry, and occupational optometry will be covered under the studentship