

Syllabus for Bachelors in Optometry Programme
(Effective for Students Admitted in Academic Session 2018-2019)

6th SEMESTER

Paper: SYSTEMIC CONDITION & THE EYE

Code: BO -601

Contact: 3L+0T

Credits: 3

Course Content	
UNIT/MODULE1	<ol style="list-style-type: none"> 1. Arterial Hypertension <ol style="list-style-type: none"> i) Pathophysiology, classification, clinical examination, diagnosis, complications, management. ii) Ocular Manifestations of Arterial Hypertension 2. Diabetes mellitus <ol style="list-style-type: none"> i) Pathophysiology, classification, clinical features, diagnosis, complications, management. ii) Ocular Manifestations of Diabetes mellitus 3. Malignancy <ol style="list-style-type: none"> i) Definitions, nomenclature, characteristics of benign & malignant neoplasms. ii) Grading and staging of cancer, diagnosis, principles of treatment. <p>Ocular Manifestations of Neoplasia</p>
UNIT/MODULE 2	<ol style="list-style-type: none"> 4. Connective Tissue Disease <ol style="list-style-type: none"> i) Anatomy and pathophysiology: Arthritis. ii) Ocular Manifestations of connective tissue disease. 5. Thyroid Disease <ol style="list-style-type: none"> i) Anatomy and physiology of the thyroid gland. ii) Classification of thyroid disease <p>Diagnosis, complications, clinical features, management of thyroid disease involving eye</p>
UNIT/MODULE 3	<ol style="list-style-type: none"> 6. Tuberculosis <ol style="list-style-type: none"> i) Etiology, pathology, clinical features, pulmonary TB, diagnosis, complications, treatment of tuberculosis involving the eye. 7. Tropical Disease and the Eye <ol style="list-style-type: none"> i) Leprosy. ii) Syphilis. iii) Ocular Manifestations of Leprosy and syphilis
UNIT/MODULE 4	<ol style="list-style-type: none"> 8. Genetic disorders and the eye.

Reference books: CLINICAL OPHTHALMOLOGY- JACK J KANSKI

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Paper: FUNDAMENTALS OF CLINICAL RESEARCH

Code: BO -602

Contact: 2L+1T

Credits: 3

Course Content	
UNIT/MODULE1	<ol style="list-style-type: none">1. Introduction to research2. Types of research3. Terminology4. Steps involved in preparation of projects
UNIT/MODULE 2	<ol style="list-style-type: none">5. Research ethics6. Introduction about Biostatistics, variables, data, population sample, parameter statistics, scales of measurement.7. Classification & Presentation of data: Frequency distribution, Frequency polygon, Bar diagram, Histogram, Frequency distribution curve.8. Descriptive statistics: Statistics of location, Mean Median Mode, Geometric mean, Range, Statistics of Dispersion, Mean Deviation, Standard Deviation, Coefficient of Variation. Correlation & Regression.
UNIT/MODULE 3	<ol style="list-style-type: none">9. Sampling Statistics: Sampling & Sampling Distribution, Sampling Errors & sampling statistics, Standard errors, Degree of freedom, Types of Sampling.10. Introduction to Probability11. Significance and student's T test
UNIT/MODULE 4	<ol style="list-style-type: none">12. Experimental Design: Controlled and uncontrolled experiment.13. Applications: Collection, presentation and analysis of hospital statistical data with examples. Collection, presentation and analysis of Optometric and ophthalmologic data with a few examples.14. Case study

Reference books:

1. MANUAL OF BIOSTATISTICS & EPIDEMIOLOGY PRACTICALS- DR. N C LUWANG, BIOSTATISTICS- PRAVAKAR RAO

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Paper: SPECIALIZED CONTACT LENS

Code: BO -603

Contact: 2L+1T

Credits: 3

Course Content	
UNIT/MODULE1	<ol style="list-style-type: none">1. Contact lens fitting in astigmatism.2. Contact lens fitting in keratokonus.3. Contact lens fitting in children.
UNIT/MODULE 2	<ol style="list-style-type: none">4. Cosmetic and prosthetic contact lenses.5. Contact lens – Toric, Bifocal, Multifocal.6. Therapeutic lenses / Bandage lenses.
UNIT/MODULE 3	<ol style="list-style-type: none">7. Recent advances in contact lenses.8. Contact lens complications and their management.9. Prosthetic eye fitting procedures & conformers.

Reference book-CONTACT LENS PRACTICE- MONIKA CHOUDHURY

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Paper: PROFESSIONAL PRACTICE MANAGEMENT

Code: BO -604

Contact: 2L+0T

Credits: 2

Course Content	
UNIT/MODULE1	1. Law & Optometry <input type="checkbox"/> Laws governing medical and paramedical professions <input type="checkbox"/> Consumer act with respect to optometry and dispensing of optical Aids. <input type="checkbox"/> International optometry. <input type="checkbox"/> Personal and professional insurance (indemnity). <input type="checkbox"/> Ethics. <input type="checkbox"/> Negligence.
UNIT/MODULE 2	2. Basic Accountancy <input type="checkbox"/> Introduction. <input type="checkbox"/> Terms used in accounts, Principles of accountancy. <input type="checkbox"/> Journal & ledger <input type="checkbox"/> Trial Balance
UNIT/MODULE 3	Public relations. <input type="checkbox"/> Definitions. <input type="checkbox"/> PR- its disfunction from publicity, propaganda & advertising. <input type="checkbox"/> Internal and external aspects of PR <input type="checkbox"/> Phases of PR: analysis building, promotion of product or services, better employee, government and community relation.
UNIT/MODULE 4	3. Case Study:- (at least ten Cases) as per format

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Paper: APPLIED OPTOMETRY AND ORTHOPTICS

Code: BO -605

Contact: 2L+1T

Credits: 3

Course Content	
UNIT/MODULE 1	Orthoptic Instruments Prism bar Synaptophore Maddox wing Maddox rod Hess screen Risley Prisms
UNIT/MODULE 2	Investigative Procedures <ul style="list-style-type: none"> ◆ Motor signs in squint <ul style="list-style-type: none"> A) Head position: Face turn, chin position, Head tilt. B) Cover test & cover-uncover tests C) Maddox wing to assess heterophoria. ◆ Assessment of degree of squint <ul style="list-style-type: none"> a)Hirschbag test. b) Prism bar test. c) Krimskey test d) Synoptophore test
UNIT/MODULE 3	<ul style="list-style-type: none"> ◆ Various Cranial nerve palsy – 3rd, 4th and 6th ◆ Assessment of ocular motility status <ul style="list-style-type: none"> a)Hess chart b)Diplopia testing c)Bielschowskys Head tilting test ◆ Assessment of visual sensory status in squint. Amblyopia Suppression Binocular single vision – SMP, Fusion, Stereopsis. <ul style="list-style-type: none"> ◆ Types of squint – a) latent / manifest <ul style="list-style-type: none"> b)horizontal / vertical c)paralytic / concomitant
UNIT/MODULE 4	Orthoptic Treatment Procedures Management of – Convergenceinsufficiency

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	Amblyopia Suppression ARC Use of prism -For Exercise & correction Management of AMBLYOPIA
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Reference book: THEORY AND PRACTICE OF SQUINT AND ORTHOPTICS- A.K.KHURANA

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Practical

Paper: SPECIALIZED CONTACT LENS

Code: BO -691

Contacts: 3P

Credits: 3

1. Fitting and assessment of contact lenses – steep, flat, optimum on spherical cornea.
2. Fitting and assessment of contact lenses – steep, flat, optimum on toric cornea with spherical lenses.
3. Fitting and assessment of contact lenses – steep, flat, optimum on toric cornea with toric lenses.
4. Teaching the patient to insert and remove contact lenses.
5. Writing Contact Lens prescriptions

Paper: APPLIED OPTOMETRY AND ORTHOPTICS

Code: BO -692

Contacts: 3P

Credits: 3

1. Demonstration of following Orthoptic instruments/methods and their uses –
PrismBar
Synaptophore
Maddox Wing
Maddox Rod
Red Green Goggles
RAF Gauge
Cover test
Hirschberg test
Krimsky test
Diplopia charting
Visuoscopy
Accommodative flipper
2. Orthoptic Investigative & Therapeutic Procedure.
3. Case records.