Brien Holden® VISION INSTITUTE ACADEMY

Global Optometry Resources

Neurological Eye Disease

NEUROLOGICAL EYE DISEASE

STUDENT MANUAL

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COURSE OUTLINE

COURSE AIM

This module aims to provide the student with an understanding of neurological eye diseases such as glaucoma and ocular nerve palsies, their management and their related systemic component.

COURSE OBJECTIVES

By the end of the module the student should be able to:

- describe the ocular manifestations of systemic neurological diseases, including glaucoma
- describe systemic neurological diseases with ocular manifestations
- explain the assessment and management of patients with ocular manifestations of neurological conditions, including glaucoma

COURSE CONTENT

This course is divided into two parts, *Neurological Eye Disease* and G*laucoma*. The topics covered in this course include:

Neurological Eye Disease

- Pupils
- Localisation of visual field defects
- 3rd, 4th and 6th cranial nerve palsies
- Supranuclear gaze control and lesions
- Nystagmus and eye movement abnormalities
- Eyelid Disorders
- Specific Disorders

Glaucoma

- Glaucoma - introduction and epidemiology
- Pathophysiology of glaucoma
- Risk factors for primary open angle glaucoma
- Clinical evaluation of primary open angle glaucoma
- Angle closure glaucoma and secondary glaucomas
- Differentiating primary open angle glaucoma
- Visual fields in glaucoma

- Auxiliary testing in primary open angle glaucoma
- Imaging in glaucoma
- Pharmacological management of glaucoma
- Surgical treatments for primary open angle glaucoma

COURSE DELIVERY

This module is designed to be delivered over 1 semester. Total delivery time for Neurological Eye Disease is 42 hours of lectures.

Learning and Teaching Methods & Resources

The suggested teaching methods for this course include: PowerPoint presentations, case studies, clinical attachments, laboratory assignments, clinical assessment and self-directed study.

Suggested equipment for teaching includes:

- Computer & projector
- White board
- Handout

RECOMMENDED ASSESSMENT

- Written examination(s)
- Assignment

TEXT BOOKS

Prescribed texts

- Brien Holden Vision Institute. Global Optometric Resource Modules, Brien Holden Vision Institute; 2014.
- Kanski J, Bowling B. Clinical Ophthalmology: A systematic approach. 7th Edition. Butterworth-Heinemann; 2011.
- Riordan-Eva P and Whitcher JP. Vaughan and Asbury's General Ophthalmology. 17th Edition. USA: Lange Medical Books/MacGraw-Hill. 2004
- Muchnick B. Clinical Medicine in Optometric Practice. Elsevier; 2007.
- Schacknow PN, Samples JR. The Glaucoma Book: A practical evidence-based approach to patient care. Springer; 2010.
- Litwak AB. Glaucoma Handbook. Boston: Butterworth-Heinemann. 2001.
- Battery M and Bowling B. Ophthalmology. 2nd Edition. Philadelphia. Lippincott. Raven Publishing Company. 2001.
- Pavan-Langston D. Manual of Ocular Diagnosis and Therapy. Lippincott; 2007.
- Fechner PU and Teichmann KD. Ocular therapeutics pharmacology and clinical application. SLACK Incorporated. 1997.
- Spalton D, Hitching R, Hunter P. Atlas of Clinical Ophthalmology with CD-ROM; 2004.
- Tasman W. Duane's Ophthalmology. Lippincott Williams and Wilkins. 2010.
- Gerstenblith AT, Rabinowitz MP, Barahimi BI, Fecarotta CM, Friedberg MA and Rapunao CJ. The Wills Eye Manual: Office and Emergency Room Diagnosis & Treatment of Eye Disease. 6th Edition. Philadelphia: Lippincott, Williams and Wilkins. 2012.
- Yanoff M, Duker J; Augsburger JJ. Ophthalmology. St. Louis, MO:Mosby; 2013.
- Alexander LJ. Primary Care of the Posterior Segment. 3rd Edition. Norwalk: MacGraw-Hill Companies, Inc. 2002.

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