OPT-1710: Introduction to Patient Care

#### ı

## **OPT-1710: INTRODUCTION TO PATIENT CARE**

# **Cuyahoga Community College**

Viewing: OPT-1710: Introduction to Patient Care

**Board of Trustees:** 

January 2023

**Academic Term:** 

Fall 2023

**Subject Code** 

**OPT - Optical Technology** 

Course Number:

1710

Title:

Introduction to Patient Care

#### **Catalog Description:**

Introduction to concepts and skills important to an allied health professional in the field of Ophthalmology such as ocular anatomy and physiology, patient history, and lensometry.

## Credit Hour(s):

3

#### Lecture Hour(s):

3

## Lab Hour(s):

0

## Requisites

#### **Prerequisite and Corequisite**

Departmental approval.

## **Outcomes**

## Course Outcome(s):

Discuss the role of an ophthalmic assistant within ophthalmology including scope of practice, clinical roles, ethics and professional behavior.

## Objective(s):

- 1. Identify the guidelines for informed consent, confidentiality, truth telling, and pediatric ethics in ophthalmology.
- 2. Identify boundary issues when working with ophthalmic patients.
- 3. Describe how multiculturalism affects ophthalmic patient care.
- 4. Explain the difference between medical errors, insurance, and malpractice.
- 5. Summarize the scope of practice for an Ophthalmic Assistant.

## Course Outcome(s):

Accurately document the medical history of an ophthalmic patient.

## Objective(s):

- a. Identify the guidelines for informed consent, confidentiality, and truth telling, and pediatric ethics in ophthalmology.
- b. Describe normal and abnormal ocular anatomy and physiology
- c. Document patient medical history using appropriate medical terminology.
- d. Explain the difference between medical errors, insurance, and malpractice.

#### Course Outcome(s):

Describe the ophthalmic equipment used during an ophthalmic exam and discuss proper maintenance and microbial control of ophthalmic equipment.

#### Objective(s):

- 1. Employ ophthalmic equipment.
- 2. Maintain ophthalmic equipment.
- 3. Convert units from the English system of measurement into the metric system.
- 4. Utilize appropriate microbial control including hand washing, disinfection and sterilization, handling of sterile articles, and decontamination of contaminated articles.

#### Methods of Evaluation:

- a. Examinations
- b. Quizzes
- c. Participation in group learning activities
- d. Assignments

#### **Course Content Outline:**

- a. Overview of allied health personnel in ophthalmology
  - i. Clinical roles
  - ii. Certification process
  - iii. Scope of practice
- b. Medical terminology
  - i. Rules for proper medical term formation
  - ii. Word elements
    - 1. Prefix
    - 2. Suffix
- c. Metric system
  - i. Overview of the metric system
  - ii. Conversion
    - 1. English to metric
    - 2. Metric to metric
- d. Ophthalmology ethics
  - i. Informed consent
  - ii. Confidentiality
  - iii. Truth telling
  - iv. Boundary issues
  - v. Multiculturalism
  - vi. Pediatric ethics
  - vii. Medical error
  - viii. Advertising
  - ix. Fee splitting
  - x. Trainees in patient care
- e. Review of anatomy and physiology of the eye
  - i. Anatomy of the eye
    - 1. Orbit
    - 2. Adnexa
      - a. Eyebrow
      - b. Eyelids
      - c. Conjunctive
        - i. Bulbar
        - ii. Fornix
        - iii. Palpebral
        - iv. Plica seminlunaris
      - d. Tears

- i. Lipid layer
- ii. Aqueous layer
- iii. Mucin layer
- e. Extraocular muscles
  - i. Superior rectus
  - ii. Inferior rectus
  - iii. Medial rectus
  - iv. Lateral rectus
  - v. Superior oblique
  - vi. Inferior oblique
- f. Globe
  - i. Limbus
  - ii. Sclera
  - iii. Anterior segment
    - 1. Cornea
      - a. Epithelium
      - b. Bowman's layer
      - c. Stroma
      - d. Descemet's membrane
      - e. Endothelium
    - 2. Anterior chamber
    - 3. Posterior chamber
    - 4. Iris
    - 5. Crystalline lens
    - 6. Ciliary body
  - iv. Posterior segment
    - 1. Vitreous
    - 2. Retina
      - a. Photoreceptors
        - i. Rods
        - ii. Cones
      - b. Regions of the fundus
        - i. Macula lutea
        - ii. Fovea centralis
        - iii. Peripheral retina
      - c. Retinal pigment epithelium
      - d. Choroid
  - v. Optic nerve
- ii. Physiology of the eye
  - 1. Tear production
    - a. Lipid layer production by meibomian glands
    - b. Aqueous layer production by lacrimal gland
    - c. Mucin layer production by goblet cells
    - d. Tear dynamics
  - 2. Ocular motility
    - a. Cardinal positions
    - b. Innervation of the extraocular muscles
      - i. Oculomotor nerve
      - ii. Trochlear nerve
      - iii. Abducens nerve
    - c. Corneal function
    - d. Accommodation
    - e. Intraocular pressure
    - f. Retinal function
      - i. Scotopic vision
      - ii. Photopic vision
    - g. Uvea
- f. Diseases and disorders of the eye

- 4
- i. Refractive error
  - 1. Myopia
  - 2. Hyperopia
- ii. Astigmatism
- iii. Presbyopia
- iv. Amblyopia
- v. Neovascularization
- vi. Corneal ulcer
- vii. Edema
- viii. Trauma
  - 1. Blow out fracture
  - 2. Chemical burn
  - 3. Corneal abrasion
- ix. Blepharitis
- x. Dry eye
- xi. Afferent pupillary defect
- xii. Conjunctivitis
  - 1. Bacterial
  - 2. Giant papillary
  - 3. Viral
- xiii. Strabisumus
  - 1. Tropia
  - 2. Phoria
- xiv. Diplopia
- xv. Glaucoma
- xvi. Vitreous detachment
- xvii. Floaters
- xviii. Diabetic retinopathy
- xix. Macular degeneration
- xx. Uveitis
- g. History taking
  - i. Presenting complaint
  - ii. Past ocular history
  - iii. Family history
  - iv. Systemic illness
    - 1. Past
    - 2. Present
  - v. Medications
  - vi. Allergies and drug reactions
  - vii. Partially sighted patient
- h. Ophthalmic equipment
  - i. Equipment use
  - ii. Equipment maintenance
  - iii. Microbial control
- i. Basic skills and lensometry
  - i. Basic optics
  - ii. Basic lensometry
    - 1. Parts of the lensometer
    - 2. Neutralization of lenses

## Resources

American Academy of Ophthalmology. *Introducing Ophthalmology: A Primer for Office Staff*. 2nd ed. American Academy of Ophthalmolog, 2002.

Newmark,, Emanuel. ed. Ophthalmic Medical Assisting. 5th ed. San Francisco: American Academy of Ophthalmology, 2012.

Ledford, Janice. Principles and Practice in Ophthalmic Assisting (A Comprehensive Textbook). Thorofare, NJ: Slack Incorporated, 2018.

O'Hara, Mary A. Ophthalmic Medical Assisting: An Independent Study Course. 6th ed. American Academy of Ophthalmology, 2022.

Stein, Harold A. et al. The Ophthalmic Assistant: A Text for Allied and Associated Ophthalmic Personnel. 11th ed. St. Louis: Elsevier, 2022.

Top of page Key: 3332