

BROWARD COLLEGE COURSE OUTLINE

LAST REVIEW: 2009-2010

NEXT REVIEW: 2014-2015

STATUS: A

COURSE TITLE: ORIENTATION TO VISION CARE

COMMON COURSE NUMBER: OPT 1330

CREDIT HOURS: 3

CONTACT HOUR BREAKDOWN

Lecture: **48**

Lab:

CLOCK HOURS:

Clinic: **0**

Other: **0**

PREREQUISITE(S):

COREQUISITE(S):

PRE or COREQUISITE(S): OPT 1210, OPT1110 and OPT 1110L

COURSE DESCRIPTION

This course reviews the techniques necessary in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular motility and accommodation, color discrimination, depth perception and binocular fusion. Emphasis is also placed on gaining familiarity with the medical terminology as it relates to the visual system.

UNIT TITLES

- 1 INTRODUCTION TO VISION CARE
- 2 TERMS AND ABBREVIATIONS USED IN VISION CARE
- 3 UNIVERSAL PRECAUTIONS/HIPAA/OSHA
- 4 HISTORY TAKING
- 5 OPHTHALMIC EQUIPMENT
- 6 VISUAL ASSESSMENT
- 7 PUPIL FUNCTION
- 8 OCULAR MOTILITY AND BINOCULAR FUNCTION
- 9 TONOMETRY
- 10 CHAIRSIDE SKILLS
- 11 BASIC VISUAL FIELDS
- 12 TELEBINOCULAR VISUAL ASSESSMENT
- 13 DEPTH PERCEPTION
- 14 COLOR VISION TESTING
- 15 AMPLITUDE OF ACCOMMODATION

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Unit 1 INTRODUCTION TO VISION CARE

General Outcome:

1.0 The student shall: be able to explain the rules and regulations of the department. Terms, abbreviations and the history of vision care will also be discussed.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1 Explain the rules and regulations of the department.
- 1.2 Describe theories of vision.
- 1.3 Describe the history of ophthalmic science and vision care.
- 1.4 State the educational requirements of all ophthalmic science careers.
- 1.5 List the duties of ophthalmic technicians and opticians.
- 1.6 Describe the technician's role in a professional organization.
- 1.7 Describe six (6) characteristics of a professional technician.
- 1.8 Explain malpractice suit.
- 1.9 Explain patient confidentiality.

Unit 2 TERMS AND ABBREVIATIONS USED IN VISION CARE

General Outcome:

2.0 The student will be able to demonstrate knowledge and the ability to use terms and abbreviations used in this program.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Define the terms used in this course.
- 2.2 Define commonly used abbreviations.
- 2.3 Transcribe patient history and exam notes using proper abbreviations and terms.

Unit 3 UNIVERSAL PRECAUTIONS/HIPAA/OSHA

General Outcome:

3.0 The student will be able to explain universal precautions, aseptic technique and infection control.

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Unit 3 UNIVERSAL PRECAUTIONS/HIPAA/OSHA **continued**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 3.1 Explain safety measures as they apply to a student and to an ophthalmic technician and optician.
- 3.2 Define Universal Precautions/HIPAA/ OSHA.
- 3.3 Demonstrate knowledge of sexually transmitted diseases, including AIDS.
- 3.4 Define infection control practices.

Unit 4 HISTORY TAKING

General Outcome:

4.0 The student will be able to explain the importance of the seven (7) areas in a complete case history.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 4.1 Explain the importance of obtaining an accurate and concise history.
- 4.2 Outline the order of topics covered in obtaining a history.
- 4.3 Discuss examples of questions designed to provide general information.
- 4.4 Explain procedures for patient identification and greeting.
- 4.5 Discuss examples of questions designed to provide information on patient's chief complaint.
- 4.6 Discuss examples of questions designed to provide information on history of present illness.
- 4.7 Discuss examples of questions designed to provide information on past ocular history.
- 4.8 Discuss examples of questions designed to provide information on ocular medications.
- 4.9 Discuss examples of questions designed to provide information on past medical history.
- 4.10 Discuss examples of questions designed to provide information on social and vocational history.
- 4.11 Discuss examples of questions designed to provide information on systemic problems and allergies.
- 4.12 Discuss examples of questions designed to provide information on other history related to vision.

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Unit 5 OPHTHALMIC EQUIPMENT

General Outcome:

5.0 The student will be able to explain the usage of the major diagnostic and testing equipment commonly used in an ophthalmic office

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 5.1 Describe the equipment used for refraction.
- 5.2 Describe the equipment used to detect muscle imbalance.
- 5.3 Explain the instruments used to determine the power of a lens.
- 5.4 Explain the instruments used to examine the interior of the eye.
- 5.5 Explain the instruments used to study the anterior segment of the eye.
- 5.6 Explain the instruments used to examine the angle structures of the eye.
- 5.7 Explain the instruments used to examine and assess the cornea.
- 5.8 Explain the instruments used to measure the intraocular pressure.
- 5.9 Describe special instruments used in examination of the eye.
- 5.10 Describe the use of lasers in ophthalmic surgery.

Unit 6 VISUAL ASSESSMENT

General Outcome:

6.0 The student will be able to perform visual assessment on a patient.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 6.1 Understand the necessity for and how to measure vision.
- 6.2 Discuss various methods of measuring visual acuity.
- 6.3 Understand why and when vision is tested with a pinhole.
- 6.4 Understand how to record visual acuity.
- 6.5 Understand when and how to test for potential visual acuity in the preoperative patient with decreased vision.
- 6.6 Understand how to test a patient who is unable to read the standard chart.
- 6.7 Explain contract sensitivity and glare.
- 6.8 Explain the procedures in a "Low Vision Examination".

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Unit 7 PUPIL FUNCTION

General Outcome:

7.0 The student will understand how to assess a patient's pupillary functions.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 7.1 Differentiate the functions of the iris dilator and the iris sphincter in the control of pupil size.
- 7.2 Identify the anatomic structures that constitute the afferent and the efferent pathways for pupil function in sequence.
- 7.3 Explain the near reflex.
- 7.4 Describe testing for a relative afferent pupillary defect and its significance.
- 7.5 Describe four common defects that affect pupil function.
- 7.6 Explain P.E.R.R.L.A.

Unit 8 OCULAR MOTILITY AND BINOCULAR FUNCTION

General Outcome:

8.0 The student will be able to explain the eye movement control systems.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 8.1 Explain fixation
- 8.2 Explain how sensory tests evaluate fusion
- 8.3 Evaluate fusional amplitudes
- 8.4 Differentiate types of convergence
- 8.5 Explain the relationship between accommodation and convergence
- 8.6 Understand how prisms correct for binocular dysfunction.
- 8.7 Understand how to test for muscle function

Unit 9 TONOMETRY

General Outcome:

9.0 The student will be able to explain the procedure for taking the reading of inter-ocular pressure.

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Unit 9 TONOMETRY continued

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 9.1 Discuss the reasons for taking inter-ocular pressure (IOP).
- 9.2 Discuss the principal difference between applanation and indentation tonometry.
- 9.3 Identify three commonly used tonometer
- 9.4 Discuss the method of taking an IOP with t.he Schiottz tonometer.
- 9.5 Describe the target and the method of taking an IOP with the Goldman Tonometer.
- 9.6 Describe the target and the method of taking an IOP with the Non-Contact Tonometer (NCT).

Unit 10 CHAIRSIDE SKILLS

General Outcome:

10.0 The student will be able to explain the procedure for performing chair-side skills and assisting the doctor with the patient examination.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 10.1 State the proper procedures for the maintenance of an efficient refracting and examining room
- 10.7 Explain the use of the phorotpor
- 10.8 Describe the use of a trial frame and lenses
- 10.9 List special techniques used for acuity measurement on children
- 10.10 Describe the procedure used to “set up” a patient for testing
- 10.11 Explain the duties of a scribe
- 10.12 Describe how to record all of the findings on a patient’s chart.
- 10.13 Explain the procedure used to prepare a patient for a dilated ocular examination

Unit 11 BASIC VISUAL FIELDS

General Outcome:

11.0 The student will be able to explain the reason for and the procedure for visual fields

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Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

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Unit 11 BASIC VISUAL FIELDS continued

- 11.1 Explain the concept of the hill of vision.
- 11.2 Associate characteristic patterns of visual field defects with abnormalities in specific segments of the afferent visual pathways.
- 11.3 Describe two (2) procedures for doing confrontation fields.
- 11.4 List five (5) common errors in performing confrontation fields.

Unit 12 TELEBINOCULAR VISUAL ASSESSMENT

General Outcome:

12.0 The student will be able to explain the use of the telebinocular.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 12.1 Explain the use of the telebinocular as a visual screening instrument.
- 12.2 Describe the telebinocular as a vision training instrument.
- 12.3 Explain the telebinocular as a diagnostic instrument.
- 12.4 Compare and contrast the telebinocular as a screening, diagnostic, and vision training instrument.
- 12.5 Differentiate between the various sets of slides for the telebinocular.

Unit 13 DEPTH PERCEPTION

General Outcome:

13.0 The student will be able to explain the procedure for assessing a patient's depth perception and be able to explain the need for the procedure to a patient.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 13.1 Explain depth perception as a function of binocular vision
- 13.2 Describe the procedure for using the Wirt and Stereo Fly test
- 13.3 Discuss how the Worth four-dot test can be used to detect suppression

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Unit 14 COLOR VISION

General Outcome:

14.0 The student will be able to explain the procedure for assessing a patient's depth perception and be able to explain the need for the procedure to a patient.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 14.1 Differentiate between congenital and acquired color blindness.
- 14.2 Describe seven (7) color defects.
- 14.3 Explain methods of four (4) color vision defects tests.
- 14.4 Describe the effect of systemic disease on color vision.

Unit 15 AMPLITUDE OF ACCOMMODATION

General Outcome:

15.0 The student will be able to explain the procedure for assessing a patient's ability to focus at different distances.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 15.1 Explain the procedure used in the "push-up paddle" test.
- 15.2 Discuss the effect of ageing on the process of accommodation
- 15.3 List the major factors in presbyopia..
- 15.4 Determine the power of the reading add when given the patient's age and accommodative reserve.