OPH 132
OPTICAL DISPENSING II

COURSE DESCRIPTION:

Prerequisites: OPH 131 and OPH 141
Corequisites: None

This course continues the study of optical dispensing begun in OPH 131. Emphasis is on advanced dispensing skills. Upon completion, students should be able to design and dispense appropriate eyewear for a variety of patients. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

a. Describe the effect of wanted and unwanted prism in eyewear.
b. Use basic optical principles to describe the function of multifocals.
c. Analyze prescriptions according to the classification of ametropia.
d. Perform single-vision and multifocal vertical imbalance computations.
e. Determine methods of correction for vertical imbalance.
f. Describe the effect of changing the vertex distance of eyewear.
g. Classify lenses and frames based on customer's needs.
h. Describe frame adjustments to ensure patient comfort.
i. Describe the effects of radiation on the eye.
j. Classify absorptive lenses according to their properties and uses.
k. Demonstrate knowledge of safety eyewear and regulations affecting the dispensing of safety eyewear.
l. Identify ANSI standards.

OUTLINE OF INSTRUCTION:

I. Frame Fitting Theory
   A. Frame selection
   B. Mechanical fitting procedures
   C. Frame shape and color analysis
   D. Special fitting requirements

II. Multifocals
   A. Conventional multifocals
   B. Occupational multifocals
   C. Special designs
   D. Multifocal optics

III. Radiation and the Eye
   A. Ultraviolet spectrum
   B. Absorptive lenses
   C. Specialty tints

IV. Anisometropia
   A. Definition of anisometropia
   B. Cause of anisometropia

V. Single vision vertical imbalance
   A. Reading level calculation
   B. Definition of vertical imbalance
   C. Formula to solve vertical imbalance
      1.) Prentice's rule
      2.) Oblique meridian formula

VI. Multifocal vertical imbalance
   A. Calculation of vertical imbalance
   B. Correction of vertical imbalance

VII. Prism
   A. Power calculations
   B. Base direction
   C. Practical prism applications

VIII. Vertex Power Considerations
   A. Effective power
   B. Compensated power
   C. Practical vertex applications

IX. Dispensing safety eyewear
   A. ANSI standards
   B. Frame and lens types

X. Lens Cross Applications

XI. ABO Review

REQUIRED TEXTBOOKS AND MATERIALS:

Brooks and Borish. Systems for Ophthalmic Dispensing. 2nd ed. Butterworth-Heinemann 1996.

SUGGESTED REFERENCES:

Any of the following textbooks, current edition:

Fannin and Grosvenor. Clinical Optics. Butterworth- Heinemann.

Stein and Slatt. The Ophthalmic Assistant. 4th ed. C.V. Mosby Company.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.