

# **CURRICULUM GUIDELINES**

| A: | Division:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEALTH SCIENCES                                                                              | \$       | Date:                                                         | <b>January 8, 2001</b>      |  |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------|-----------------------------|--|
| В: | Department/<br>Program Area:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DISPENSING OPTIC<br>PROGRAM                                                                  | IAN      | New Course                                                    | Revision X                  |  |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |          | If Revision, Section(s)                                       | Revised: E, F, G, M, N      |  |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |          | Date Last Revised:                                            | March 1, 1995               |  |
| C: | DOPT 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 00 D:                                                                                        | DISPENS  | ING OPTICIAN THEORY                                           | Y II E: 7                   |  |
|    | Subject & Cour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | rse No.                                                                                      |          | Descriptive Title                                             | Semester Credits            |  |
| F: | Calendar Description: This course provides theory related to eyeglass dispensing at an advanced level. The following content areas are presented: detailed information regarding various instruments used in Optometry and Ophthalmology, specific aspects of optics, detailed information related to lenses for various eye conditions as well as for vocational and specialty lenses, surgical alternatives, analysis and interpretation of selected properties, business practices and professional standards of practice. |                                                                                              |          |                                                               |                             |  |
| G: | Allocation of Contact Hours to Types of Instruction/Learning Settings  Primary Methods of Instructional Delivery and/or Learning Settings:                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                              |          | H: Course Prerequisites:                                      |                             |  |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              | y and/or | DOPT 100 + DOPT 112                                           |                             |  |
|    | Lecture and Stu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | cture and Student Directed Learning umber of Contact Hours: (per semester for each scriptor) |          | <ul><li>Course Corequisites:</li><li>DOPT 210 + DOP</li></ul> | T 212                       |  |
|    | Number of Conta<br>descriptor)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                              |          | J. Course for which this                                      | s Course is a Prerequisite: |  |
|    | Lecture 90 hrs. Student Directed Learning 90 hrs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                              |          | DOPT 310                                                      |                             |  |
|    | Number of Week                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ss per Semester: 15                                                                          |          | K. Maximum Class Size                                         | :                           |  |
| L: | PLEASE INDICATE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                              |          |                                                               |                             |  |
|    | Non-Credit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                              |          |                                                               |                             |  |
|    | X College Cre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | College Credit Non-Transfer                                                                  |          |                                                               |                             |  |
|    | College Credit Transfer: Requested Granted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                              |          |                                                               |                             |  |
|    | SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                              |          |                                                               |                             |  |

### M: Course Objectives/Learning Outcomes

Upon Successful Completion the Student will be able to:-

- 1. Define Ophthalmic terminology pertaining to clinical evaluation
- 2. Neutralize a myopic, hyperopic, and presbyopic prescription from an existing lens.
- 3. Define the function of various ophthalmic instruments used in the scope of practice of Ophthalmology and Optometry.
- 4. Calculate the following
  - 4.1 front and back vertex powers of a lens
  - 4.2 the effective and compensated powers for vertex conversion
  - 4.3 the sum of two prescriptions
- 5. 5.1 Define medical terminology for visual deficiencies
  - 5.2 incorporate severe visual deficiencies by prescription and apply knowledge to recommend specific lens materials and frame selection
  - 5.3 apply knowledge in dispensing multifocal and vocational lenses
  - 5.4 calculate the image jump with a bifocal lens
- 6. 6.1 calculate prismatic effect and vertical imbalance of a lens
  - 6.2 compound and resolve lens prism
  - 6.3 given a particular prescription and patient needs, dispense the lens and frame requirements interpreted from the prescription
- 7. 7.1 Define Ophthalmic terminology pertaining to surgical alternatives
  - 7.2 Be able to give clear descriptions of Surgical Alternatives
- 8. 8.1 Practice business communication (written & verbal)
  - 8.2 How to improve selling techniques
  - 8.3 How to use persuasion in the workplace
  - 8.4 Define the functions of Office Management
  - 8.5 How to prepare a formal report
- 9. Standards of Practice
  - 9.1-client management
  - 9.2-records management
  - 9.3-supervision and responsibility
  - 9.4-professional ethics
  - 9.5-equipment for dispensing eyeglasses
  - 9.6-tolerances for dispensing eyeglasses

#### N: Course Content

#### 1. Introduction

- -course content and requirements
- -review of DOPT 100
- -working partnerships with Ophthalmology and Optometry

### 2. Clinical Theory II

- -ophthalmic terminology and instrumentation
- -neutralizing prescription lenses with the lensometer
- -neutralizing bifocal, trifocal, and progressive lenses
- -functions of instruments used in Ophthalmology and Optometry

Autorefractor

Keratometer

**Biomicroscope** 

**Ophthalmoscope** 

Tonometer

Radiuscope

Retinoscope

Phoropter

Maddox Rod

Pseudoisochromatic Plates

- -ultrasonic scanning
- -visual field tests

### 3. Physical Optics II & Applied Math II

- -effective and compensated powers of a lens
- -vergence of light through an optical medium
- -converting vertex power of a lens
- -combinations of prescriptions
- -combining spherical, sphero-cylinder, and sphero-cylinder with opposite lens axis

#### 4. Applied Optics II: A. Lenses

#### **B.** Analysis and Interpretation

#### A: Lenses

- -presbyopia and dispensing
- -design and construction of multifocal lenses
- -aphakia and hyperopic lenses
- -high myopia and myopic lenses
- -lens materials and frame consideration
- -image jump with bifocal lenses
- -prismatic effects with bifocal lenses
- -vocational spectacle lenses

#### **B:** Analysis and Interpretation

- -prismatic effects of a lens
- -prismatic effects at the near vision point
- -vertical imbalance
- -correction of vertical imbalance
- -compounding and resolving prism
- -dispensing prescriptions by problem solving

### 5. Surgical Alternatives

Medical and ophthalmic terms pertaining to surgical alternatives to spectacle and/or content lens wear, including the following:

- -refractive keratoplasty
- -keratomileusis
- -keratophakia
- -epikeratoprosthesis
- -radial keratotomy
- -Photo refractive Keratectomy (PRK)
- -intraocular lens implants
- -Automated Lamellar Keratoplasty (ALK)
- -Laser assisted in Situ Keratomileusis (LASIK)

### 6. Practice/Business Management

- -business communication
- -non-verbal communication
- -written communication
- -how to improve selling techniques
- -how to prepare letters, memorandums, and a resume
- -how to use persuasion in the workplace
- -office management

#### 7. Standards of Practice

- -client management
- -records management
- -supervision and responsibility
- -professional ethics
- -equipment for dispensing eyeglasses
- -tolerance for dispensing eyeglasses

#### **O:** Methods of Instruction

- 1. Lecture
- 2. Application / Calculation exercises in classroom
- 3. Independent study of courseware
- 4. Independent completion of post tests
- 5. Completion of field assignments

## P: Textbooks and Materials to be Purchased by Students

Brooks - Boris, System for Ophthalmic Dispensing, (Latest Edition)New York, Fairchild

Cassin - Soloman, Dictionary of Eye Terminology, (Latest Edition) Florida, Triad Co.

Dowalaby, Practical Aspects of Ophthalmic Optics, (Latest Edition)New York, Fairchild

**Douglas College Courseware** 

| Q:   | Means of Assessment                                                                |                                                       |  |  |  |  |
|------|------------------------------------------------------------------------------------|-------------------------------------------------------|--|--|--|--|
|      | 1. Completion of post tests                                                        | 20%                                                   |  |  |  |  |
|      | 2. Midterm exams (X2)                                                              | 40%                                                   |  |  |  |  |
|      | 3. Final exam                                                                      | 30%                                                   |  |  |  |  |
|      | 4. Completion of field assignments                                                 | 10%                                                   |  |  |  |  |
|      |                                                                                    |                                                       |  |  |  |  |
| R:   | Prior Learning Assessment and Recognition: specify whether course is open for PLAR |                                                       |  |  |  |  |
|      | No                                                                                 |                                                       |  |  |  |  |
|      |                                                                                    |                                                       |  |  |  |  |
|      |                                                                                    |                                                       |  |  |  |  |
|      |                                                                                    |                                                       |  |  |  |  |
|      | V. Kuturon                                                                         | Maylhap                                               |  |  |  |  |
| Cour | rse Designer(s)                                                                    | Education Council/Curriculum Committee Representative |  |  |  |  |
| •    | Alwood                                                                             | _ P.H. Dres                                           |  |  |  |  |
| Dear | Director                                                                           | Registrar                                             |  |  |  |  |

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