

CURRICULUM GUIDELINES

A: Division: **HEALTH SCIENCES** Date: **May 23, 2002**

B: Department/ **DISPENSING OPTICIAN** New Course Revision
 Program Area: **PROGRAM**

If Revision, Section(s) Revised: **Q**

Date Last Revised: **January 8, 2001**

C: DOPT 212 D: DISPENSING OPTICIAN LAB SKILLS II E: 4

Subject & Course No. Descriptive Title Semester Credits

F: Calendar Description:
 This course provides students the laboratory skills to surface lenses, lay-out, block and edge multifocal and progressive lenses. It provides the skills to identify and tint plastic lenses and customize a frame to suit the patient's needs, and to repair broken frames and parts of plastic and metal frame materials.

<p>G: Allocation of Contact Hours to Types of Instruction/Learning Settings</p> <p>Primary Methods of Instructional Delivery and/or Learning Settings:</p> <p>Laboratory</p> <p>Number of Contact Hours: (per semester for each descriptor)</p> <p>Laboratory 150 hrs.</p> <p>Number of Weeks per Semester: 15</p>	<p>H: Course Prerequisites:</p> <p>DOPT 100 + DOPT 112</p>
	<p>I. Course Corequisites:</p> <p>DOPT 200 + DOPT 210</p>
	<p>J. Course for which this Course is a Prerequisite:</p> <p>DOPT 310</p>
	<p>K. Maximum Class Size:</p> <p>14</p>

L: PLEASE INDICATE:

Non-Credit

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. Apply knowledge of lens surfacing to dispensing and edging skills
2. Perform lens surfacing
3. Verify the powers of multifocal and progressive lenses
4. Calculate vertical and horizontal centration of multifocal and progressive lenses
5. Block and edge multifocal and progressive lenses
6. Identify and tint various plastic lens materials
7. Customize frame designs for patient needs
8. Repair various plastic frame materials
9. Perform repairs to broken frame hinges, screws and pins
10. Repair metal frames by soldering

N: Course Content**1. Introduction**

- course content and requirements
- orientation to surfacing equipment
- an overview of the surfacing process
- industry standard charts for surfacing
- safety procedures in the surfacing laboratory

2. Surfacing**2.1 Analysis of Opticians Order**

- validation of completed prescription
- prism for optical centering

2.2 Computing

- entering information
- blank size requirements
- determining lens material
- determining index of refraction

2.3 Lay-Out

- interpreting computer grinding and lay-out instructions
- laps for fining and polishing
- axis of prisms
- grinding base curve
- cross curves
- front curves
- lens thickness
- tool selection
- elliptical factors

- 2.4 Blocking**
 - lens taping
 - metal alloys
 - heat blocking with metal alloy
 - cooling and stabilizing process

- 2.5 Generating**
 - chucking
 - use of prism rings
 - lens cutting

- 2.6 Fining and Polishing**
 - tool selection
 - tool padding
 - machine procedures
 - materials and polishing times
 - surface analysis

- 2.7 De-Blocking**
 - cold de-blocking plastic lenses
 - heat de-blocking glass lenses
 - re-claiming tanks
 - cleaning process
 - prescription verification

- 2.8 Truing Tools**
 - determining lap curve
 - tool casting
 - base curve selection
 - industry standard charts
 - cutting and verifying lap curve

- 2.9 Machine Maintenance**
 - lubrication schedule
 - calibration
 - recycling waste products

- 3. Spotting of Lenses**
 - power verification of multifocal lenses
 - power verification of progressive lenses
 - identifying and marking progressive lens lay-out engravings

- 4. Centration of Multifocal and Progressive Lenses**
 - calculating optical centres and reference points with reading adds
 - calculating segment placement
 - calculating centration of progressive lenses
 - calculating centration of vocational lenses

5. **Blocking Multifocal and Progressive Lenses**
 - protractor scales
 - vertical and horizontal centration

6. **Lens Tinting**
 - lens materials acceptable to heat dyeing
 - overview of equipment and process
 - mixing and changing dye solutions
 - heating fluid temperature and relation to color activity
 - color matching plastic material differences

7. **Soldering**
 - electric verses gas soldering
 - flux, solder and melting temperatures
 - developing the right materials
 - cooling, cleaning and polishing

8. **Frame Customization and Repairing**
 - 8.1 **Customizing**
 - frame materials acceptable to alteration
 - changing lens shapes
 - altering bridge designs
 - altering temple length
 - changing temple design

 - 8.2 **Repairing**
 - frame materials acceptable to repair
 - screws and pins
 - hinges and plaques
 - rimless mountings
 - bonding plastics compounds

O: Methods of Instruction

1. Laboratory Lecture
2. Application / Calculation exercises in Laboratory
3. Independent Study of Courseware
4. Completion of Proficiency Tests
5. Completion of Laboratory Assignments

P: Textbooks and Materials to be Purchased by Students

Brooks - **Essentials for Ophthalmic Lens Work**, (Latest Edition) New York, Fairchild

Douglas College Courseware

Q: Means of Assessment

- | | | |
|----|--------------------------------------|-----|
| 1. | Completion of Proficiency Tests | 20% |
| 2. | Completion of Laboratory Assignments | 20% |
| 3. | Midterm Exams | 20% |
| 4. | Practical Exam | 20% |
| 5. | Final Exam | 20% |

Midterm and Final Exams will be Written and Practical

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

Yes

Course Designer(s)

Education Council/Curriculum Committee Representative

Dean/Director

Registrar

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