Douglas College

EFFECTIVE: SEPTEMBER 2002

CURRICULUM GUIDELINES

A: Division: **HEALTH SCIENCES**

B: Department/ Program Area: **DISPENSING OPTICIAN PROGRAM**

Date: **May 23, 2002**

New Course [ ] Revision [X]

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

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

C: **DOPT 410** (Subject & Course No.) **D:** **CLINICAL DISPENSING I** (Descriptive Title) **E:** **3** (Semester Credits)

F: Calendar Description:
This course provides learning opportunities for students in the contact lens program to apply knowledge and skills from related contact lens theory and laboratory courses to the contact lens dispensary. Students will be placed in the Douglas College Vision Centre and will complete their contact lens dispensing skills under direct supervision of a program instructor.

G: Allocation of Contact Hours to Types of Instruction/Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

Clinical Experience

Number of Contact Hours: (per semester for each descriptor)

Clinical Experience **120 hrs.**

Number of Weeks per Semester: **15**

H: Course Prerequisites:

DOPT 310 or upon direct entrance requirements

I. Course Corequisites:

DOPT 400, 412

J. Course for which this Course is a Prerequisite:

DOPT 510, 610

K. Maximum Class Size:

14

L: PLEASE INDICATE:

- [ ] Non-Credit
- [X] 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

1. Obtain a general history from the patient through discussion to determine visual, physiological, pathological problems, and activity needs of the patient.

2. Review and compare past and current ocular status and assess suitability for lens wear, and determine what diagnostic activities must be conducted to complete evaluation.

3. Use instrumentation and other provisional methods to determine appropriate soft contact lens type and design.

4. Interpret patient refractive error and keratometry readings by analyzing a written prescription and accumulated information to meet patient's needs.

5. Discuss soft contact lens options with the patient as related to the ocular status and prescription.

6. Apply knowledge of soft lens materials, characteristics, and physiology to maintain ocular integrity and visual requirement of the patient.

7. Conduct a diagnostic soft lens evaluation by inserting a trial lens and evaluating objective findings to determine appropriate design and fitting relationship.

8. Determine aggregate lens parameters from the diagnostic fitting and patient subjective responses and order soft lenses by specific lens parameters to achieve optimal fit and visual acuity.

9. Educate the patient by providing verbal and written instructions and hands-on practice of soft lens insertion / removal procedures.

10. Educate the patient by providing verbal and written instructions and hands-on practice of soft lens care and hygiene.

11. Determine the patient's subjective responses to soft lens wear by follow-up examination to evaluate appropriateness of lens comfort, material and solution compatibility and visual acuity.

12. Evaluate soft lens fit by observation using instrumentation, diagnostic tools, and empirical methods and determine objective findings.

13. Make necessary modifications of lens parameters, lens materials and / or lens solutions to improve fitting characteristics, ocular health, patient compliance, and visual acuity.

14. Reinforce to the patient the necessity of follow-up examination for compliance, evaluation, soft lens care, hygiene and handling protocols.

N: Course Content

1. Introduction

-Clinical Objectives
-Professionalism in the clinical dispensary
-Clinical and personal hygiene

2. Instrumentation

Slit Lamp Biomicroscope	Keratometry	lensometer
Profile Analyzer	Hand Loop	Diameter Gauge
Vertex Conversion Chart	Dioptric Conversion Chart	Radiuscope
Snellen Chart	Acuity trial Lens Set	

3. Prefit Evaluation / Soft Contact Lenses

3.1 Ocular Anatomy and Physiology

Cornea structure	Conjunctiva	Lid structure
Tear film	Lashes	Crystalline lens
Iris	Pupil	Sclera

3.2 Ocular Pathology

Conjunctivitis	GPC	Blepharitis
Exophthalmos	Keratoconus	Keratitis sicca
Neovascularization	Pterygium	Pinguecula
Aniridia	Corneal edema	Corneal Ulcers
Bullous keratopathy	Corneal dystrophies	

3.3 Abnormalities Effecting Contact Lens Wear

Alcohol	Drugs	Diabetes
Arthritis	Herpes	Thyroid
Ocular Medication	Systemic Disease	Allergies

3.4 Lifestyle Considerations For Contact Lens Wear

Athletics	Work Environment
Climate	Cosmetic
Social	Age

3.5 Refractive Errors

Myopia	Hyperopia	Presbyopia
Aphakia	Amblyopia	Strabismus
Astigmatism	Aniseikonia	Exotropia
Esotropia	Pseudophakia	Anisometropia

3.6 Corneal Defects / Deformities / Injuries

Keratoplasty	Albinism	Nystagmus
Coloboma	Retinopathy of prematurely	
Radial Keratometry	Laser Surgery	

N: Course Content cont'd

4. Determine Lens Type / Lens Design / Soft Lenses

4.1 Soft Lens Configuration and Design

Aspheric	Front Toric	Back Toric
Bi-Toric	Prism Ballast	Keratoconus
Presbyopic Design	Aphakic Design	CosmeticDesign
Lenticular Myoflange	Lenticular Hyperflange	

4.2 Determination of Soft Lens Parameters

Base Curve	Diameter	Edge Design
Thickness	Vertex Power	
Apical Posterior Curve	Posterior Peripheral Curve	

4.3 Chemical Properties / Relation to Pre-Fit Evaluation

Oxygen Permeability	Transmissibility	Durability
Thermal Conductivity	Water Content	Stability

4.4 Lens Material Characteristics / Relation to Pre-Fit Evaluation

Prescription Limitation	Design Limitations
Specific Gravity	Color Tinting
Manufacturing Limitation	

5. Solution Compatibility / Soft Lens Material

5.1 Chemical Disinfection Systems
5.2 Thermal Disinfection Systems
5.3 Hydrogen Peroxide Disinfection
5.4 Surfactant Cleaners
5.5 Enzyme Cleaners
5.6 Rewetting Agents

6. Fitting Procedure / Soft Lens

6.1 Procedure for Specific Soft Lens Types

Daily Wear	Extended Wear
Therapeutic	Investigational

6.2 Procedure for Specific Patient Application

Myopia	Hyperopia	Astigmatism
Presbyopia	Aphakia	Esotropia
Exotropia	Therapeutic	Pediatric

N: Course Content Cont'd

7. Patient Instruction / Delivery Procedure / Soft Lens

7.1 Patient Instruction / Verbal and Written

-Patient hygiene
-Insertion and removal techniques
-Alternate insertion and removal techniques
-Emergency responses to patient insertion and removal techniques

7.2 Patient Post Insertion / Removal Procedure

-Movement / Centration / Stability
-Burning / Itching / Stinging
-Presence of a foreign body
-Inverted lens
-Visual acuity

7.3 Hygiene and Soft Lens Care

-Chemical Disinfection Systems
-Thermal Disinfection Systems
-Hydrogen Peroxide Disinfection
-Surfactant Cleaners
-Enzyme Cleaners
-Rewetting Agents

7.4 Soft Lens Sensitivities / Contamination

-Chemical contamination
-By-Product contamination
-Airborne contamination
-Allergy reactions
-Systemic reaction
-Medication reaction

8. Patient Follow-Up Care / Evaluation / Soft Lens

8.1 Instrumentation Diagnosis

a) Keratometry
-Lens fitting observation
-Objective diagnosis
-Corneal compatibility

b) Slit Lamp Biomicroscope
-Ocular anatomy
-Ocular physiology
-Lens fitting evaluation
-Corneal compatibility
-Objective diagnosis
-Fluorescein pattern evaluation

N: Course Content Cont'd

c) Phoropter / Trial Lens Set

8.2 Aspects of Evaluation / Corrective Measures / Soft Lens

Movement	Centration	Stability
Steep Lens	Flat Lens	Inverted Lens
Corneal Molding	Corneal Edema	Infection
Neovascularization	Corneal Staining	Foreign Body
Conjunctival Staining	Allergic Ocular Response	
	Systemic Ocular Response	

8.3 Follow-Up Protocols / Soft Lens Type/R.G.P.

Aspheric	Front Toric	Back Toric
Bi-Toric	Prism Ballast	Keratoconus
Presbyopic	Aphakic	Cosmetic

8.4 Follow-Up Protocols / Solution Compatibility

-Allergic ocular response
-Systemic ocular response
-Daily wear materials
-Extended wear materials
-Therapeutic / Pediatric materials

8.5 Follow-Up Protocols / Specific Patient Types

-Routine
-Apprehensive
-Psychologically unstable
-Port Surgical

O: Methods of Instruction

1. Lecture
2. Clinical exercises in the dispensary
3. Independent study of procedures
4. Completion of Independent evaluation
5. Completion of Assignment.

P: Textbooks and Materials to be Purchased by Students

Mandell, **Contact Lens Practice**, (Latest Edition) Charles C. Thomas Publishing

Stein - Slatt - Stein, **Fitting Guide for Rigid and Soft Contact Lenses**, (Latest Edition) C.V. Mosby Co.

Stein - Slatt - Stein, **A Primer in Ophthalmology**, (Latest Edition) C.V. Mosby Co.

Douglas College Courseware

Q: Means of Assessment

Evaluation of the course will be based on the course objectives in accordance with Douglas College policies. Evaluation methods will include written tests and assignments.

1.	Completion of Assignments	30%
2.	Midterm exams	30%
3.	Final exam	30%
4.	Completion of field assignments	10%

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