

Department of Vision Care Technology
Course Outline VCT 2413 – Section

<u>Course:</u>	Ophthalmic Dispensing VCT2413
<u>Class Hours & Credits:</u>	4 Lecture Hours (5 Credits) 3 Laboratory Hours
<u>Prerequisites:</u>	VCT2313
<u>Textbook:</u>	<u>System for Ophthalmic Dispensing</u> ; Third edition; Brooks, C. and Borish, I; Butterworth-Heinemann-Elsevier, 2007
<u>Required Reading:</u>	<u>ABO Preparation Course</u> ; parts 1-8 <u>Ophthalmic Dispensing Review Book</u> National Academy of Opticianry, 2012
<u>Recommended Reading:</u>	<u>Clinical Optics</u> , second edition; Fannin, T. and Grosvenor, T.; Butterworth-Heinemann, 1996 <u>Optical Formulas Tutorial</u> ; Stoner, E., Perkins, P., Butterworth-Heinemann, 1996 <u>Optical Formulas Tutorial</u> ; Stoner, E. and Perkins, P.; Butterworth-Heinemann, 2005
<u>Course Requirements:</u>	Standard Department attendance regulations. Professional laboratory jackets (for lab)
<u>Evaluation and Grading</u>	2 class exams - 30% of final grade Term paper(s) – 10% of final grade Laboratory – 30 % of final grade Final Exam – 30% of final grade (makeup examinations will be scheduled at the discretion of the instructor)
<u>Office Hours</u>	Posted on bulletin board located directly outside the Department office (P312)
<u>Course Coordinator:</u>	Professor J. Siegel

New York City College of Technology Policy on Academic Integrity

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

<u>WEEK</u>	<u>HR(S)</u>	<u>TOPIC</u>	<u>READING / HO / HW</u>
1	1	Overview of Course Objectives	"State Licensing Boards 2011"
	1	Licensing Regulations and Certifications	
	2	Review of Ophthalmic Dispensing I	Homework sheet distributed and detailed
2	4	Review of Ophthalmic Dispensing I	Homework assignment due
3	4	Presbyopia	<u>System for Ophthalmic Dispensing</u> , Chapter 21; <u>Clinical Optics</u> , Chapter 8
4	4	Lifestyle Dispensing	<u>System for Ophthalmic Dispensing</u> , Chapter 4; <u>Clinical Optics</u> , Chapter 10; "Office Technology", "Range of Clear Vision", "Focus on Lifestyle Considerations and Protective Eyewear for Young Athletes", "Sample Price List", "Fitting Children With Ophthalmic Eyewear", "High Index Primer", Reducing Progressive Lens Choices to a Manageable Toolbox". A Clear Perspective of Freeform", "Dispensing Task Specific Eyewear", "Computer Lens Fitting Guide". "Inventory Management". "Triage – Evaluating and Prioritizing Patient Emergencies". "Scripting Your Sales Staff", "Fashion Front Face Facts", "www.eyecessorize.com"
5	4	Lifestyle Dispensing (Cont.)	
6	2	Clinical Procedures – Prescription Analysis; Recommending the Appropriate Lens Design and Lens Add-ons	<u>System for Ophthalmic Dispensing</u> , Chapters 3, 4, 5; <u>Clinical Optics</u> , Chapters 8, 9; "Correction Profile Sheet 2011"

	2	Clinical Procedures – Frame Adjusting, Analyzing and Solving Adjustment Problems	<u>System for Ophthalmic Dispensing</u> , xiii – xx, Chapter 8, 9; “Frame Adjustments”, “Frame Adjusting Grading Sheet”, “Fitting and Adjusting Problems”
7	2	Clinical Procedures – Ordering and Verification	<u>System for Ophthalmic Dispensing</u> , Chapter 6, “Order Form Grading Sheet”
	2	EXAMINATION	
<u>WEEK</u>	<u>HR(S)</u>	<u>TOPIC</u>	<u>READING / HO / HW</u>
8	4	Absorptive Lenses and Lens Coatings	<u>System for Ophthalmic Dispensing</u> , Chapter 22; <u>Clinical Optics</u> , Chapter 7; “Spectral Transmittance”, “Photo Sensitizing Drugs”, “Absorptive Lenses”
9	4	Absorptive Lenses and Lens Coatings (Cont.)	Distribute “Pre-ABO Questions”, “ABO Review Questions 2011”
10	2	Regulations and Standards	<u>System for Ophthalmic Dispensing</u> , Chapter 23, Appendix A & B; “Standards – What the OLA says you must know”, “OSHA – Beware of These Violations”, “ANSI Z80.1 2010”
10	2	The Practice of Ophthalmic Dispensing	“The Practice of Ophthalmic Dispensing: Some Key Points”, <u>System for Ophthalmic Dispensing</u> , Chapter 21
11	4	Managed Care	“Medicare Claim Forms Case Studies”
12	4	Aphakic Dispensing	<u>System for Ophthalmic Dispensing</u> , Chapter 18; <u>Clinical Optics</u> , Chapter 11, “Aphakic Dispensing”

13	4	Certification Preparation	<u>Ophthalmic Dispensing Review Book</u> ; “Pre-ABO Questions”; “ABO Review Questions 2011”
14	4	Certification Preparation (Cont.)	
15	2	Essentials of the New York State Practical Examination	
15	2	FINAL EXAMINATION	

Grading Procedures for:
VCT2313 Lab and VCT2413 Lab

Laboratory is 30% of the final course grade.

The laboratory grade is based on the following criteria:

- I. Completing assigned laboratory projects, for example: a minimum of required lens neutralizations.
- II. Quiz (es) 10%
- III. Midterm 30%
- IV. Final Examination 60%

VCT2413 Laboratory – Section

Instructional Hours

I. Laboratory Orientation

3 Hours

- A. Conditions: A review of essential measurements necessary to fit a patient for eyeglasses. Pupillary distance measurements and segment placement for multifocals will be presented. Distance decentration, segment inset and total inset will be reviewed.
- B. Performance: The student will be able to explain the reasons for determining interocular measurements and segment placement and be able to orientate the patient so that these measurements can be determined. They will be able to determine all required measurements within \pm one-millimeter tolerance. Utilizing prescription order forms, the students will measure and record all necessary measurement to fit a given “patient” (a minimum of five completed order forms will be required).

II. Prescription Analysis and Lens Selection

9 Hours

- A. Conditions: A review of various prescription needs including: refractive errors, phorias, antimetropia, anisometropia, vertical imbalance, aphakia, ultraviolet protection, glare protection, and anti-reflective coatings. Particular occupational and avocational needs will be detailed. Simulated prescriptions will be distributed.
- B. Performance: The student will be able to differentiate visual problems indicated by the various prescriptions, supply a description of the problems, take measurements, recommend the proper type of lenses and frame, record all data on a record card. The third session will include a timed practical quiz that encompasses this area.

III. Frame Adjustments

6 Hours

- A. Conditions: The instructor will exhibit different types of frames (both plastic and Metal). Specific types of pliers for both types of frames will be presented. Various types of adjustments will be demonstrated. Various frame adjustment problems will be presented and methods to solve these problems will be detailed.
- B. Performance: With particular stress on the frames with inverted U-shaped style adjustable guardarms, the student will be able to bench align the frame, fit the frame to the patient, and perform the following adjustments: pantoscopic tilt, retroscopic tilt, raise front, lower front, increase vertex distance, decrease vertex distance. The student will be able to discuss a method for solving a frame-fitting problem and demonstrate the stated adjustment.

Midterm

3 Hours

Review of Midterm

3 Hours

IV. Determining A Patient's Eyeglass Rx

6 Hours

- A. Conditions: A thorough discussion on the utilization of the lensometer in determining the distance and addition powers of multifocal lenses (including high power plus and minus prescriptions) including determining unwanted vertical prism. Use of the lens clock to determine base curve and add power will be reviewed. Extending the range of the lensometer will be explained. Proper technique for determining vertical imbalance, distance and near P.D.'s and segment height will be covered. The student will be given a minimum of 16 pair of eyeglasses (within two sessions).
- B. Performance: Each student will be able to determine the lens type, base curve, lens power(s), distance/near P.D.'s and segment height, and be able to determine if there is unwanted vertical prism imbalance within a given time frame. This laboratory project will be collected and graded.

V. Correction Profile Analysis

9 Hours

- A. Conditions: The students working in pairs, with each taking turns, will be given a pair of multifocals to neutralize and a correction profile to analyze.
- B. Performance: Within a given time, the students will be able to differentiate the generic design (progressive addition lens, bifocal or trifocal) and determine the prescription, base curve and any lens extras (A/R or tint). They will be able to recommend an appropriate lens design and take the necessary measurements to fit the lens design and complete a laboratory order form. This exercise will be repeated a minimum of eight times.

Final Examination

3 Hours

- A. Conditions: This examination will include the following: eyeglass neutralization (multifocal); lens design and frame design for a given correction profile; patient orientation and measurement technique; recording of data; vertex distance measurements; bench alignment; frame adjustments
- C. Performance: Within a given time frame (45 minutes), each candidate will neutralize and record appropriate data for a given pair of eyeglasses; utilize the gathered data and a correction profile to design a pair of eyeglasses for a given "patient"; measure the vertex distance of the "patient's" frame; demonstrate placing a frame in bench alignment; discuss how to solve a minimum of four fitting problems and demonstrate the adjustments for each one.

Review of Final Examination

3 Hours