

OPTICIANRY

Program Outline

Major:	OPTI
Length:	2 Years
Delivery:	4 Semesters, plus 2 work terms
Credential:	Ontario College Diploma, Co-op
Effective:	2015-2016
Location:	Barrie
Start:	Fall (Barrie), Winter (Barrie)

Description

The Opticianry program is unique in that it offers a blend of health care and business management. The theory and practical experience in labs/clinics teaches students to competently dispense eyeglasses, contact lenses and sub-normal vision devices. The program also focuses on the expertise necessary to surface, fabricate, repair, customize and modify eyewear to the patient/clients' needs. Emphasis is also placed on entrepreneurship by teaching how to establish and operate a small business, how to use effective sales techniques as well as enhancing communication and interpersonal skills in order to be successful in the optical retail environment.

Upon successful completion of the academic and co-operative education semesters, students are eligible to write the national registration examinations which allow them, if successful to practice in Canada as a Registered Optician.

Career Opportunities

Opticians are long-standing members of the health care delivery team in a field for which there is a growing universal need. Registered Opticians may dispense eyewear independently or as part of the eye care team. Consequently, many aspire to operate their own businesses. As recognized professionals under the Regulated Health Professions Act, career possibilities exist in large retail optical chains, independent

dispensaries and medical clinics in Ontario and across Canada. Graduates obtain full-time positions readily, and often move into managerial roles.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

- provide effective optical care that meets the National professional standards and requirements for registration as a licenced Optician;
- competently perform all aspects of dispensing eyewear including vision screening, basic refraction, contact lenses and low vision devices;
- educate and advocate effectively by promoting the benefits of ocular health and eye safety for a patient/client;
- communicate and collaborate effectively as part of a multi-disciplinary eyecare team using professional judgment and critical thinking;
- embrace the principle of life-long learning, continuing education and professional development and apply the new knowledge to daily practice;
- successfully function in a diverse optical environment which could include the traditional retail model, medical clinical settings, sales, self-employment and business management;
- employ environmentally sustainable practices within the profession;
- apply basic entrepreneurial procedures suitable for an owner operated small business or within a corporate environment.

Practical Experience:

Co-operative Education is a mandatory component of all Co-op programs at Georgian College; it has been designed as a process by which students integrate their academic education with work experience related to their programs of study. This integration affects much more than simply earning a salary, including the adjustment to the work environment and the development of professionalism. It also reinforces skills and theory learned during academic semesters, develops professional contacts, job knowledge and career path, improves human relations and communication skills, and promotes personal maturity and financial independence.

Students are requested to register, attend and participate in their scheduled co-operative education classes. These classes are scheduled for all first year students and are expected to be completed in order for students to proceed successfully to their first co-op work experiences. To ensure students are eligible to proceed onto any co-op work experience, students should refer to Promotional Status and Eligibility for Co-op as outlined in the College Calendar. Co-op policies and procedures can be located on our website: www.georgiancollege.ca/student-services/co-op-and-career-services/students-tab/

Georgian College follows the Co-operative Education guidelines set out by the Canadian Association for Co-operative Education (CAFCE) and Education at Work Ontario (EWO) by supporting the learning outcomes designed for the program specific graduate profile and curriculum as set out by the Ministry of Training, Colleges and Universities.

The Program Progression:

Fall Intake - Barrie

Semester 1	Semester 2	Work Term 1	Semester 3	Semester 4
Fall 2015	Winter 2016	Summer 2016	Fall 2016	Winter 2017

Work Term 2

Summer
2017

Winter Intake - Barrie

Sem 1	Sem 2	Sem 3	Sem 4	Work Term 1	Work Term 2
Winter 2016	Summer 2016	Fall 2016	Winter 2017	Summer 2017	Fall 2017

Articulation:

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at

<http://www.georgiancollege.ca/admissions/credit-transfer/>

Admission Requirements:

OSSD or equivalent with

- Grade 12 English (C or U)
- Grade 12 Mathematics (C or U)
- Grade 11 or 12 Biology (C or U)

OR Grade 11 (U) or Grade 12 (C or U) Chemistry

OR Grade 11 or 12 (U), or Grade 12 (C) Physics

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: www.georgiancollege.ca/admissions/policies-procedures/

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit Transfer Centre website for details:
www.georgiancollege.ca/admissions/credit-transfer/

Selection Process:

Selection is based on admission requirements and academic grades.

Additional Information:

In addition to the mandatory course work, comprehensive exams will be offered in order to prepare students for their National Exams. The grades given in each section will be either a successful or unsuccessful along with valuable feedback prior to the National Exams. These series of examinations are not graduation requirements.

In order for a student to register for the comprehensive examinations the students must have:

- successfully completed all academic semesters
- successfully completed two co-operative work terms
- successfully completed the practice requirements including:
 - 1000 hours of supervised dispensing experience
 - 250 spectacle fittings broken down into the specific areas
 - 15 soft contact lens fittings
 - 5 rigid lens fittings

Comprehensive Exams

OPTX0011	Comprehensive Written Examination
OPTX0012	Comprehensive Pathology Examination
OPTX0013	Comprehensive Eyeglass Examination
OPTX0014	Comprehensive Contact Lens Examination

Note: Winter Intake students may be able to complete their first work term while in class, allowing them to complete their program and write the Comprehensive Exams at the same time as the Fall intake; contact Program Coordinator for further details.

Graduation Requirements:

- 31 Mandatory Courses
- 2 Communications Courses
- 3 General Education Courses

2 Co-op Work Terms

Graduation Eligibility:

To graduate from this program, the passing weighted average for promotion through each semester, from year to year, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

Mandatory Courses

BUSI3007	Business Principles for the Regulated Professional
ENTR2009	Entrepreneurship and Small Business
OPTI1009	Eyeglass Fabrication and Lens Design 1 Lab
OPTI1010	Contact Lens Dispensing 1 Theory
OPTI1011	Contact Lens Instrumentation Lab
OPTI1012	Theoretical Optics
OPTI1013	Basic Eyeglass Dispensing Theory
OPTI1014	Basic Eyeglass Dispensing Lab
OPTI1015	Dispensing Customer Service
OPTI1016	Applied Optics
OPTI1017	Eyeglass Fabrication and Lens Design 2 Lab
OPTI1018	Contact Lens Dispensing 2 Theory
OPTI1019	Contact Lens Basic Applications
OPTI1020	Intermediate Eyeglass Dispensing Theory
OPTI1021	Intermediate Eyeglass Dispensing Lab
OPTI2014	The Psychology of Eyeglass Dispensing Theory
OPTI2015	Advanced Eyeglass Lab
OPTI2016	Contact Lens Dispensing Optics
OPTI2017	Contact Lens Intermediate Applications
OPTI2018	Eyeglass Fabrication 3
OPTI2019	Eyeglass Customization 1 Lab
OPTI2020	Ocular Science 1
OPTI2021	Comprehensive Eyeglass Theory
OPTI2022	Comprehensive Eyeglass Lab
OPTI2023	Advanced Contact Lens Dispensing Theory
OPTI2024	Contact Lens Advanced Applications
OPTI2025	Eyeglass Customization 2 Lab
OPTI2026	Ocular Science 2
OPTI2027	Advanced Optics
OPTI2028	Eyeglass Fabrication 4 Lab
OPTI2029	Optical Selected Topics

Communications Courses

To be selected at time of registration from the College list, as determined by testing.

General Education Courses

To be selected from College list

Co-op Work Terms

COOP1015 Opticianry Work Term 1

COOP2013 Opticianry Work Term 2

Course Descriptions:

BUSI3007 Business Principles for the Regulated Professional 42.0 Hours

In today's economic reality, many health care professionals will find themselves either self-employed, or employed on a part-time basis or on a contract by a small business. Students in this course will learn about their rights and responsibilities under various forms of employment. Students will also be exposed to the basic business concepts for establishing and operating a successful small business in their chosen health care field, and under the guidelines provided by the appropriate College and/or regulatory agency. (P- MASG3005 Massage Theory and Practice 5 or P- DENT1047 Introduction to the Dental Hygiene Profession or P- DENT1045 Introduction to the Dental Hygiene Profession or C- OPTI1013 Basic Eyeglass Dispensing Theory)

COOP1015 Opticianry Work Term 1 560.0 Hours

Co-operative Education is a mandatory component of all Co-op programs at Georgian College. Upon successful completion of all Semester 1, Semester 2 subjects, students must attend and participate in their scheduled semester co-op classes in order to proceed successfully to their first co-op work experience. The student will work under the direct supervision of a registered Optician.

COOP2013 Opticianry Work Term 2 560.0 Hours

Students are required to attend a scheduled debriefing session. Session will be scheduled in the first month (September) for all Work Term 1 returning co-op students entering Semester 3. The session is intended to allow the student to validate and submit supporting documentation for work term 1 credit. This must be achieved before proceeding to co-op work experience 2. The work experience allows students the opportunity to complete all the required fits, hours and the appropriate log book.

P- COOP1015 Opticianry Work Term 1

ENTR2009 Entrepreneurship and Small Business 42.0 Hours

This course deals with establishing and operating a small business. Emphasis is placed on using business techniques, acquired in previous courses, to assist in developing a comprehensive understanding of the skills and abilities needed to succeed.

OPTI1009 Eyeglass Fabrication and Lens Design 1 Lab 56.0 Hours

This course is designed to instruct the student in the purpose and operation of the equipment used in the measurement and fabrication of spectacles. Extensive practice will be provided to ensure proficiency in this important aspect of ophthalmic dispensing. Subjects covered include the surfacing, cutting, shaping and hand-edging of plastic lenses, insertion of plastic lenses to plastic frames, general frame alignment and decentering of spherical lenses to frames, basic layout and neutralization using spherical lenses. This course is designed to provide uniform instruction of technique and protocols required to perform proficiently in Fabrication Lab 1. Topics include hand beveling techniques, spectacle lens characteristics, lens blocking, cutting and insertion of plastic lenses into a plastic frame, standard frame alignment, basic layout and decentering of spherical Rx lenses and neutralization of spherical Rx's for duplication, base curve selection and blank size.

OPTI1010 Contact Lens Dispensing 1 Theory 28.0 Hours

The theory component of this course offers the students the basic knowledge of the instrumentation used in contact lens practice including keratometry and slit lamp biomicroscopy along with a detailed overview of the eyeball anatomy and accessory organs with an emphasis on the cornea and its multiple layers. Fitting philosophies, modalities of contact lens wear along with lens materials, cleaning and storage of contact lenses are discussed.

Co-OPTI1011 Contact Lens Instrumentation Lab

OPTI1011 Contact Lens Instrumentation Lab 42.0 Hours

This course is designed to provide the student with the hands-on use and operation of fundamental instruments used for contact lens fitting. The focus will be on using the Keratometer, Slit Lamp Biomicroscope and Radiuscope. Procedures will include detailed analysis of various measurements and observations that will be taken of the corneal surface along with the design and specific parameters of a variety of contact lenses.

OPTI1012 Theoretical Optics 28.0 Hours

This course begins with an overview of the basic properties of light including the study of reflection, refraction, absorption, transmission and all the necessary math formulae needed to problem solve in this specific area. This is followed by an introduction and overview of ultraviolet light and the consequences of overexposure to this particular radiation from the sun. Analysis of the recommended products for eyeglasses and contact lenses is discussed to help protect the eyes.

OPTI1013 Basic Eyeglass Dispensing Theory 28.0 Hours

This course introduces the student to preliminary concepts related to eyeglass dispensing. The student will be introduced to regulatory agencies and professional associations and their interaction with eye care professionals and the public. Rationale

and timing of the use of preliminary critical competencies associated with ophthalmic frames, lenses and measurements is examined.

Co-OPTI1014 Basic Eyeglass Dispensing Lab

OPTI1014 Basic Eyeglass Dispensing Lab 42.0 Hours

This course provides students with an introduction to the various practical aspects of dispensing eyewear, including preliminary information about frames, lenses, add-ons and measurements. The course includes essential information regarding bench aligning and adjusting frames using appropriate tools from the Opticianry trade.

Co-OPTI1013 Basic Eyeglass Dispensing Theory

OPTI1015 Dispensing Customer Service 42.0 Hours

This course focuses on key components of interactions and relationships between optical service providers and their clients and among health care team members. Effective communication and interpersonal skills will be examined and developed. Sales techniques and the importance of service quality standards will also be emphasized.

OPTI1016 Applied Optics 28.0 Hours

This course introduces students to the various physiological conditions affecting the eye and the necessary prescriptions to manage the conditions. Using different mathematical formulae students will be able to determine the thin lens power, equivalent power, back and front vertex powers of a prescription lens. The detail of an optical lens focal length is also included to provide an understanding of where and how an image is focused on the retina before and after the corrective lens has been applied.

P- OPTI1012 Theoretical Optics

OPTI1017 Eyeglass Fabrication and Lens Design 2 Lab 56.0 Hours

This course is designed to provide uniform instruction of techniques and protocols required to perform proficiently in Fabrication Lab 2. Students will receive instruction in the use of the lensometer to measure, layout, check and duplicate single vision spherical and toric lenses to a Doctor's Rx. Students receive instruction in recognition, use and layout of prisms in single vision spherical and toric lenses. Students learn surfacing techniques required to produce a spherical Rx spectacle lens. This course is designed to provide uniform instruction of techniques and protocols required to perform proficiently in Fabrication Lab 2. Students will receive instruction in the use of the lensometer to measure, layout, and check and duplicate single vision spherical and toric lenses to a Doctor's Rx. Students receive instruction in recognition, use and layout of prisms in single vision spherical and toric lenses. Students learn surfacing techniques required to produce a spherical Rx spectacle lens.

P- OPTI1009 Eyeglass Fabrication and Lens Design 1 Lab

OPTI1018 Contact Lens Dispensing 2 Theory 28.0 Hours

This course expands the scope of contact lens theory to include the criteria of a good fitting soft contact lens and how to read a nomogram used for fitting rigid contact

lenses. Fluorescein analysis is also necessary to determine the criteria of a good fitting rigid lens. The anatomy component covers extra and intra ocular muscles that coordinate eye movements moving into the recognition and description of strabismus, visual pathway and colour perception.

P- OPTI1010 Contact Lens Dispensing 1 Theory and P- OPTI1011 Contact Lens Instrumentation Lab, Co-OPTI1019 Contact Lens Basic Applications

OPTI1019 Contact Lens Basic Applications 42.0 Hours

This course expands the scope of contact lens dispensing to include the techniques of lens selection, care systems, application, and removal of soft and rigid lenses. More experience on the instruments for patient assessment is provided. Students are introduced to the methods of interpretation in regards to the criteria of a good fitting soft or rigid lens. Emphasis will be placed on developing critical thinking and problems solving skills in regards to final lens selection.

P- OPTI1010 Contact Lens Dispensing 1 Theory and P- OPTI1011 Contact Lens Instrumentation Lab, Co-OPTI1018 Contact Lens Dispensing 2 Theory

OPTI1020 Intermediate Eyeglass Dispensing Theory 28.0 Hours

This course presents the student with more complex concepts related to the dispensing of eyeglasses. Emphasis is placed on in-depth examination of dispensing concepts and strategies for effective manipulation of frames, selections of lenses and performance of dispensing measurements. Critical thinking skills are used to develop competency in the interpretation of prescriptions for vision correction. The ethical conduct of healthcare professionals is investigated and the consequences of professional misconduct are explored.

P- OPTI1013 Basic Eyeglass Dispensing Theory and P- OPTI1014 Basic Eyeglass Dispensing Lab, Co-OPTI1021 Intermediate Eyeglass Dispensing Lab

OPTI1021 Intermediate Eyeglass Dispensing Lab 42.0 Hours

This course provides students with more detailed development of their practical skills of dispensing eyeglasses, including clinical judgment regarding dispensing, design and ordering of eyeglasses and interpretation of tolerances for finished eyeglasses.

P- OPTI1013 Basic Eyeglass Dispensing Theory and P- OPTI1014 Basic Eyeglass Dispensing Lab, Co-OPTI1020 Intermediate Eyeglass Dispensing Theory

OPTI2014 The Psychology of Eyeglass Dispensing Theory 28.0 Hours

This course explores perspective of patients and how they adapt to the use and care of eyeglasses. The habits, acceptance and expectations of patients are highlighted and strategies for successful dispensing of sophisticated eyewear are studied. Emphasis is placed on critical thinking and problem solving skills. New technologies and advanced frame and lens design are married with patients' wants, needs and vision requirements.

OPTI2015 Advanced Eyeglass Lab 42.0 Hours

This course provides students with specific information about the wide range of ophthalmic products and develops advanced dispensing skills needed for complex fittings. Emphasis is placed on development of critical thinking skills and superior customer service.

OPTI2016 Contact Lens Dispensing Optics 28.0 Hours

Students are introduced to the complexities of contact lens fitting in this course combined with optical principles for example tear lens calculations, circle of least confusion, residual astigmatism and complex manifest over refractions. All aspects of the contact lens fitting routine follow up and aftercare are addressed for students to maintain the ocular health of the patient.

OPTI2017 Contact Lens Intermediate Applications 56.0 Hours

Students are introduced to the complexities of contact lens fitting, including spherical and toric lens design fittings, combined with the optical principles involved in final prescription determination. All aspects of the contact lens fitting routine and medications are addressed for students to work confidently in a safe and efficient manner.

OPTI2018 Eyeglass Fabrication 3 42.0 Hours

Lab assignments provide opportunities to develop proficiency in the vital skills of spectacle fabrication. Students practice single vision spectacle neutralization and layout according to industry standards as well as auto edging to plastic frames. Auto edging of single vision and multifocal glass and plastic lenses to metal frames as well as surface generating, fining and polishing is practiced. Mounting of prismatic lenses is introduced.

OPTI2019 Eyeglass Customization 1 Lab 42.0 Hours

This course will corroborate and illustrate optical principles learned in semesters 1 & 2. Students will surface sphero-cylindrical lenses, bifocal, trifocal progressive and prismatic lenses which will be used in various projects in the Fabrication lab. In addition, students will affect various repairs and modifications on plastic and metal frames that will provide a more comfortable fit for the client or extend the usable life of the client's frame in order to provide valuable customer service for the client.

OPTI2020 Ocular Science 1 28.0 Hours

OS1 is designed to increase your knowledge of ocular anatomy and physiology. It builds on the basic anatomy of the eye and allows the student to gain a greater appreciation of the structures of the human eye and how it relates to its function. In this course, there is an emphasis on the anterior segment of the eye and particularly how the interaction with contact lens wear can alter the physiology and biochemistry of the human eye.

OPTI2021 Comprehensive Eyeglass Theory 28.0 Hours

This course addresses management of problematic dispensing results, troubleshooting of patient complaints related to eyewear and unsatisfactory vision. Underlying causes of patient dissatisfaction are identified and multiple solutions and alternative are considered in the development of comprehensive dispensing skills. Dispensing considerations for patient with vision impairment are addressed.

OPTI2022 Comprehensive Eyeglass Lab 56.0 Hours

This course provides the student with in-depth information and skill development for dispensing low vision and basic refraction. Emphasis is placed on refinement of dispensing skills. Students are encouraged to refine their critical competencies in preparation for the workplace.

OPTI2023 Advanced Contact Lens Dispensing Theory 28.0 Hours

This theory course provides the student with more advanced product knowledge and workshops related to the fitting of complex contact lens designs including the correction of astigmatism with rigid and soft torics, management of presbyopia, therapeutic applications, orthokeratology and fitting various pathological conditions including keratoconus and dry eyes. Emphasis is placed on critical thinking and problem solving when it comes to managing these complex contact lens fittings.

OPTI2024 Contact Lens Advanced Applications 56.0 Hours

This course presents advanced levels of contact lens fitting combining the fundamentals of contact lens fitting with complex fitting situations. The theoretical component of this course will be reinforced through repetition, demonstration, and summaries of various contact lens fittings. Emphasis will be placed on assessment skills, problem solving skills and conclusions. Critical thinking, decision making and contact lens fitting skills will be enforced and evaluated throughout this course.

OPTI2025 Eyeglass Customization 2 Lab 42.0 Hours

This course continues on from semester 3. Students will work with more complex situations to produce more appealing eyewear for the client. Students will surface lenses with different base curves, indices, extremely high prescriptions and prescriptions with vertical imbalance corrections. Student will also learn to reassemble and mount 4 pt. rimless lenses. Students will learn to weld titanium metal frames and re-enamel worn metal frames. Customization techniques will include lens and temple engraving and rhinestone setting. Using critical thinking skills, students will design and produce their own personal eyewear solution to a given fitting problem.

OPTI2026 Ocular Science 2 28.0 Hours

Extending beyond ocular anatomy, Ocular Science 2 looks at the process of human vision and perception. We will investigate how evolution has shaped our vision and our understanding of our natural world over millennia. This course will also enable the optician to have a full understanding of common ocular and systemic pathology. As a

regulated health care provider, opticians will have the knowledge to make appropriate referrals for continued patient care.

OPTI2027 Advanced Optics 28.0 Hours

This course enables the students to apply their accumulated knowledge in math in order to provide solutions to various visual problems presented by the patient. Emphasis is placed on critical thinking and problem solving including such topics as vertical imbalance, manifest over refraction and sagittal depth calculations.

OPTI2028 Eyeglass Fabrication 4 Lab 42.0 Hours

This course refines the student's skills in fabrication of multifocal spectacles and the mounting of lenses into conventional and semi-rimless frames. Students will demonstrate their proficiency at fabrication under time-limited testing conditions as well as their speed and accuracy in spectacle neutralization.

OPTI2029 Optical Selected Topics 42.0 Hours

Product knowledge and guest speakers are added to this course in able to provide the students with a comprehensive view of available products and services before working in their second and final co-op. Employers expect students to know the features and benefits of specific eyeglass lenses, coatings, frames and contact lenses in order to maximum the customer service and experience which in turn enhances patient loyalty.

Course Description Legend

P = Prerequisite; C = Concurrent prerequisite; CO= Corequisite

Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.