OPHTHALMIC MEDICAL TECHNOLOGY

Cascade Campus
Technology Education Building (TEB), Room 103
971-722-5667
pcc.edu/programs/ophthalmic/

CAREER AND PROGRAM DESCRIPTION

Those training in the Ophthalmic Medical Technology Program develop skills to perform ophthalmic procedures under the supervision of a licensed physician. These procedures include: medical histories, diagnostic tests, refractometry, anatomical and functional ocular measurements and tests, administration of topical ophthalmic and oral medications, instructing patients, maintaining equipment, sterilizing surgical instruments, assisting in minor ophthalmic surgery and assisting in the fitting of contact lenses. Ophthalmic Medical Technology is a rapidly expanding field and a growing demand exists for technicians.

The Ophthalmic Program is a limited entry program with restricted enrollment. The program is limited to 24-28 students. Only those students who have been officially admitted to the Ophthalmic Medical Technology Program may enroll in OMT courses. Professionals in the field may be admitted when space is available. The program begins fall term only.

This program is designed to correlate classroom and laboratory experiences with clinical experience in ophthalmic offices and clinics and prepares students to function under the supervision of a licensed physician.

This program is accredited by the International Council of Accreditation (ICA). Students in the OMT program will test for national certification as an ophthalmic technician during term seven of the program.

DEGREE AND CERTIFICATE OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Ophthalmic Medical Technology

Academic Prerequisites

- Completion of WR 121, (BI 121 & BI 122) or BI 120, MP 111 and (MTH 58 or MTH 65), or any course for which one of these is a prerequisite) with a "C" or "P" or better.
- This is a limited entry program. A complete application including two recommendation forms and unofficial transcripts from any colleges attended other than PCC is required.

Academic Requirements

- Students may consult with faculty advisor about alternative approaches to completing portions of the Ophthalmic Medical Technology curricula.
- To advance to the next term students must successfully complete all of the previous term’s coursework by receiving a grade of Pass or C or better.

Non-Academic Prerequisites

- Students must have working knowledge or background of basic computer skills including Windows, Internet and e-mail.
- Program advising session with a Cascade Allied Health Admissions Coordinator is recommended.

Non-Academic Requirements

- After admission to the program, but before beginning practicum, students will be required to complete some or all of the following: criminal background check, proof of immunizations, and a ten-panel drug screening. There will be a cost to the student associated with completing this requirement.
- Students must have transportation to practicum facilities throughout the Portland metropolitan area.

OPHTHALMIC MEDICAL TECHNOLOGY AAS DEGREE

Minimum 94 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of sixteen credits of General Education. Some courses specified within the program may be used as General Education. A maximum of 35 Pass/No Pass credits are allowed in the Ophthalmic Medical Technology AAS Degree. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

<table>
<thead>
<tr>
<th>Year</th>
<th>Term</th>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Credits</th>
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<tr>
<td>Third Term</td>
<td>First</td>
<td>MP 135</td>
<td>Pharmacology for Allied Health</td>
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<td></td>
<td></td>
<td>OMT 115</td>
<td>Introduction to Ophthalmics</td>
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<td>OMT 116</td>
<td>EHR in Ophthalmology</td>
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<td>OMT 145</td>
<td>Clinical Optics 1</td>
<td>2</td>
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<td>OMT 163</td>
<td>Ocular Anatomy and Physiology</td>
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<td>Second</td>
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<td>Ocular Disease</td>
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<td>OMT 104</td>
<td>Ophthalmic Office Procedures</td>
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<td>Ocular Motility</td>
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<td>OMT 103</td>
<td>Ocular Pharmacology</td>
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<td>OMT 106</td>
<td>Introduction to Clinical Skills</td>
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<td>OMT 121</td>
<td>Practicum I: Ophthalmic Medical</td>
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<td>OMT 147</td>
<td>Clinical Optics 3</td>
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<td>OMT 231</td>
<td>OMT Seminar I</td>
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<td>PSY 101</td>
<td>Psychology and Human Relations (or any psychology course)</td>
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<td>OMT 206</td>
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<td>OMT 209</td>
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<td>General Education</td>
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Please Note: Only those students who have completed the first year requirements and have been officially accepted into the second year of the Ophthalmic Technology Program may enroll in the courses in the fourth and later terms.

General Education

- Credits

Fourth Term

- Credits

Fifth Term

- Credits
OMT 102. Ocular Disease. 2 Credits.
Studies major ocular diseases and related structures integrated with symptomology and treatment. Introduction of ophthalmic drugs. Audit available.

OMT 103. Ocular Pharmacology. 2 Credits.
Details major classifications of ophthalmic drugs, mechanisms of action, side effects, first aid techniques for acute ophthalmic drug reactions. Explores the relationship of ocular pathology and medications used for treatment. Prerequisites: MP 135, and (WR 115 and RD 115) or IRW 115 and MTH 20 or equivalent placement. Audit available.

OMT 104. Ophthalmic Office Procedures. 3 Credits.
Utilizes techniques to obtain medical and ophthalmic history, transcription of information into the medical chart, and common terms/abbreviations used in history taking. Covers front office techniques, including basic functions of a computer in the medical office. Develops skills needed to obtain accurate patient visual acuity.

OMT 106. Introduction to Clinical Skills. 3 Credits.
Covers basic test principles and techniques including FDT, tangent screen and Humphrey visual fields, keratometry, and noncontact, TonoPen, and applanation tonometry. Continues work on history taking and JCAHPO scribing certification.

OMT 115. Introduction to Ophthalmics. 2 Credits.
Introduces ophthalmology, the history of ophthalmology, and key ophthalmic professions. Explores the roles and responsibilities of ophthalmic technicians and other allied health personnel in ophthalmology, industry standards and professional organizations. Covers ethics of patient care, confidentiality, privacy, scope of practice, electronic health records (EHR) and employment opportunities. Covers office efficiency, professionalism and risk management. Includes HIPAA training and confidentiality for healthcare workers. Prerequisites: MP 111, WR 121, and (MTH 58 or MTH 65).

OMT 116. EHR in Ophthalmology. 2 Credits.
Explores simulated electronic health records (EHR) and how to navigate and document in a software platform. Includes confidentiality/compliance of EHR, ophthalmic terminology, analysis of content while in a clinical environment, processing health information, and simulation practice with cloud based electronic health records. Prerequisite: MP 111.

OMT 121. Practicum I: Ophthalmic Medical. 3 Credits.
Provides an opportunity to observe clinical flow in an ophthalmology office to gain understanding of how patients are scheduled, examined, and treated. Covers taking a visual acuity, measuring glasses, basic screening techniques, obtaining pertinent patient ocular/medical history, and using a Tonopen. Includes how to establish rapport with patients in an ophthalmic practice. Includes the potential for practicing skills with diagnostic equipment, and electronic health records. Corequisite: OMT 231.

OMT 122. Practicum II: Ophthalmic Medical. 6 Credits.
Develops proficiency in the use and care of ophthalmic equipment, basic screening techniques, obtaining pertinent patient ocular/medical history, diagnostic and examination procedures, medication (pharmacology and administration) and handling of patients in an ophthalmic practice. Prerequisites: OMT 121, (HE 113 or MP 113).

OMT 145. Clinical Optics 1. 2 Credits.
Presents basic optical principles and the human eye from both theoretical and practical standpoints. Explores prisms, basic dispensing, techniques for measuring types of lenses, use of the lens clock, use and maintenance of ophthalmic instruments and equipment. Audit available.

OMT 146. Clinical Optics 2. 2 Credits.
Explores principles of retinoscopy, basic lensometry, and prisms as they relate to ocular motility. Continuation of OMT 145 Clinical Optics 1. Prerequisite: OMT 145. Audit available.

OMT 147. Clinical Optics 3. 2 Credits.
Covers theories of visual perception. Introduces basic and advanced visual aids and their application to patients with various forms of low vision. Explores concepts of depth perception and color vision. Introduces concepts of retinoscopy and refractometry. Fitting, care and patient instruction of contact lens will be mastered. Prerequisite: OMT 146.

OMT 163. Ocular Anatomy and Physiology. 2 Credits.
Covers the structure and function of the human visual system. Covers the anatomy and physiology of the eyeball, orbit, and ocular adnexa with an emphasis on ocular terminology. Prerequisites: (WR 115 and RD 115) or IRW 115 and MTH 20 or equivalent placement. Audit available.

OMT 206. Diagnostic Procedures I. 4 Credits.
Introduces fundamentals of diagnostic testing and techniques including: applanation tonometry, slit lamp biomicroscopy, Goldmann and automated perimeter, ocular motility and advanced keratometry. Emphasizes building clinical skills.

OMT 207. Diagnostic Procedures II. 4 Credits.
Present the principles of advanced visual field examination with emphasis on Goldmann Perimetry. Covers the principles and techniques of exophthalmometry, color and function tests, contact lens fitting, ocular motility and echography. Focuses on skill development, and increasing speed and accuracy.

OMT 208. Ocular Motility. 2 Credits.
Explores ocular motility, associated testing and measurements required for evaluation. Emphasizes understanding the presentation, characteristics and history of the strabismus patient. Discusses amblyopia treatment and therapies. Audit available.

OMT 209. Surgical Assisting Procedures. 4 Credits.
Focuses on more advanced diagnostic procedures including electrophysiology tests, direct ophthalmoscopy, advanced color testing, glaucoma techniques, and retinoscopy. Covers the technician’s role in assisting in the management of preoperative and post-operative patients. Includes more advanced ophthalmic procedures such as ultrasound, potential acuity meter, direct ophthalmoscopy and contrast sensitivity. Addresses ophthalmology and specimen collection for the laboratory. Provides an overall review in preparation for national certification examination. Audit available.

OMT 222. Ophthalmic Medical Practicum Second Year. 5 Credits.
Provides clinical education experience in local ophthalmic practices and health care facilities under the supervision of facility personnel. Includes exposure to working conditions and skills needed while performing ophthalmic diagnostic and therapeutic procedures. May be repeated for credit.

OMT 231. OMT Seminar I. 2 Credits.
Explores the practicum experience through discussions. Covers medical ethics review, patient confidentiality, professionalism, and communication skills. Focuses on creating a chief complaint, ophthalmic scribing, and history of present illness (HPI) in an ophthalmology practice. Includes demonstrating electronic health record (EHR) documentation through simulated practice and medical coding. Students must enroll in this class if they are enrolled in first year practicum. Corequisite: OMT 121. Prerequisites: MP 111, and (WR 115 and RD 115) or IRW 115 and MTH 20 or equivalent placement.

OMT 232. OMT Seminar II. 2 Credits.
Reviews major ophthalmic subject areas through guest speakers and field trips. Explores practicum experiences and employment opportunities. Students must enroll in this class if they are enrolled in second year practicum. Corequisite: OMT 222.

OMT 233. OMT Seminar III. 2 Credits.
Continues to review major ophthalmic subject areas through guest speakers and field trips. Explores practicum experiences and employment opportunities. Students must enroll in this class if they are enrolled in second year practicum. Corequisite: OMT 222.
OMT 234. OMT Seminar IV. 2 Credits.
Reviews major ophthalmic subject areas through guest speakers and field trips. Explores practicum experiences and employment opportunities, cultural exchanges, and testing strategies in preparation for the Certified Ophthalmic Technician exam. Corequisite: OMT 222.

OMT 250. Ophthalmic Imaging. 2 Credits.
Introduces the common forms of ophthalmic imaging, OCT (Optical Coherence Tomography) ophthalmic photography (Fundus and Slit Lamp) and FA (Fluorescein Angiography), FAF (Fundus Autofluorescence). Includes other types of imaging used in Ophthalmology (CT, MRI, CCT, HRT, Ultrasound, and External Photography). Prerequisites: (WR 115 and RD 115) or IRW 115 and MTH 20 or equivalent placement. Audit available.