OPHTHALMIC TECHNICIAN (OPH)

OPH 1010 Introduction to Ophthalmic Technology, Medical Law and Ethics — 2 credits
This course introduces students to ophthalmology, including the role of the ophthalmic technician, duties and responsibilities of the ophthalmic technician, basic ocular examination techniques, measurement of visual acuities, basic lensometry, identification and usage of ophthalmic equipment, maintenance of ophthalmic examination lanes and special testing areas, ethics and privacy and confidentiality (HIPAA). Offered in the College for Adults.

OPH 1020 Ocular Anatomy and Physiology — 2 credits
This course introduces the structure and function of the human visual system including globe, orbit, ocular adnexa, conjunctiva, cornea, iris, pupil, angle structures, ciliary body, crystalline lens, vitreous, retina, optic disc, optic nerve and visual pathway. Offered in the College for Adults.

OPH 1030 Physical and Geometric Optic — 2 credits
This course introduces principles of physical optics in which light is treated as part of the electromagnetic spectrum and whose properties may be explained by waveforms as well as particles. The course examines wave and particle theory, polarization, interference, fluorescence, and lasers. It also introduces geometric optics and the behavior of light in various media, ray tracing to examine refraction, reflection, diffraction, dispersion, lenses and mirrors. It includes discussions about object-image relationships, magnification, and graphical analysis of lenses and introduces spherical and spherocylindrical lenses, optical crosses and astigmatism. Offered in the College for Adults.

OPH 1040 Physiological Optics, Spectacles and Contact Lenses — 2 credits
This course examines the human eye as an optical system by discussing physiology of image formation, optical relationships of eye structures, accommodation and effects of aging, refractive errors, astigmatism, amplitudes, prisms and Prentice’s Rule and basics of retinoscopy and refraction. It will familiarize students with contact lenses and instruments such as fitting procedures, care and storage procedures, indications for use, complications and patient instruction, spectacle dispensing, ordering and verification. Offered in the College for Adults.

OPH 1050 Ophthalmic Pharmacology — 2 credits
This course includes detailed explanations of the various ophthalmic pharmaceutical products, indications for their use, sites of action, side effects, dosages, proper instillation of agents, and abbreviations used for medications and their schedules. Offered in the College for Adults.

OPH 1060 Ocular Motility — 2 credits
This course includes anatomy and function of extraocular muscles for eye movements, measurement of normal and abnormal eye movements, abnormalities in neurological control of eye movements, normal and abnormal binocular vision, and evaluation of motor and sensory status. Offered in the College for Adults.

OPH 1210 Clinical Rotation I (Practicum) — 3 credits
This course introduces procedures for care of ophthalmology patients. Students will observe techniques in various specialty clinics. Students will observe many procedures, but emphasis will be on basic skills needed to begin patient examination. When possible, clinical applications will correspond to classroom portions of the course. Students will be introduced to appropriate equipment and instruments for patient examination, may be assigned examination rooms to maintain, will be taught basic procedures for information gathering in an examination, and will be trained to become a contributing member of the healthcare team. Offered in the College for Adults.

OPH 1220 Clinical Skills Lab I — 2 credits
This course will familiarize students with ophthalmic equipment and testing protocols emphasizing concepts underlying construction of equipment, proper usage of the equipment including positioning the patient and giving instructions, obtaining proper and usable results, interpreting results, and disinfection, where necessary. Offered in the College for Adults.

OPH 1230 Clinical Rotation II (Practicum) — 3 credits
This is a continuation of Clinical Rotation I, with further instruction in patient care and examination techniques. The course will build on students’ newly acquired basic skills and introduce new skills to be learned. More specific examination techniques will be observed and discussed and return demonstrations given for these more advanced tasks. Students will begin to greet patients and start examinations. Clinical applications will reflect, where possible, the classroom portions of the course. Offered in the College for Adults.

OPH 2010 Eye Diseases and Ocular Emergencies — 2 credits
This course introduces pathophysiological conditions of the globe and orbital region, encompassing both the more common conditions as well as some of the more unusual diseases. Offered in the College for Adults.

OPH 2020 Ophthalmic Imaging, Photography and Angiography — 2 credits
This course introduces common forms of imaging (CT, MRI, CCT, HRT, and wave front), ophthalmic photography (external and fundus), and fluorescein angiography. Offered in the College for Adults.

OPH 2030 Clinical Skills Lab II and Skills Review — 2 credits
This is a continuation of the previous clinical skills lab, building on prior clinical experiences, demonstrations and hands-on practice. Skills lab will introduce additional ophthalmic instruments, tests and protocols and their use in obtaining precise ocular measurements. Offered in the College for Adults.

OPH 2040 Instrument Maintenance and Project — 2 credits
This course introduces students to checking the calibration and routine maintenance of common ophthalmic equipment. Students will be required to complete a project, such as (but not limited to) submitting a log of calibration checks of common ophthalmic equipment along with a chart summarizing routine maintenance of common ophthalmic equipment. Offered in the College for Adults.

OPH 2050 Ophthalmic Surgical Assisting — 2 credits
This is an introduction to the ophthalmic surgical procedures such as cataract, strabismus, refractive and minor surgery. Students will learn basic concepts of sterile field, operating room and minor surgery set-up, gowning and gloving, essential ophthalmic surgical instruments and sets, and essential steps in common ophthalmic surgical procedures. Offered in the College for Adults.
OPH 2240 Clinical Rotation III — 4 credits
This is a continuation of previous clinical experiences in patient care. Students will begin to develop autonomy in patient care, and basic skills will become more advanced. New tasks will be demonstrated first by a member of the faculty, followed by student performance. When possible, classroom portions will coincide with clinical experiences in this course.

OPH 2250 Clinical Skills Lab II — 2 credits
This is a continuation of previous clinical skills lab, building on prior clinical experiences, demonstrations and hands-on practice. Skills lab will introduce additional ophthalmic instruments, tests and protocols, and their use in obtaining precise ocular measurements. Offered in the College for Adults.

OPH 2260 Clinical Rotation V (Practicum) — 4 credits
This is a continuation of previous clinical experiences in patient care. Students will be required to perform at a high level of competence in all phases of ophthalmic technology. Classroom instruction will decrease. Emphasis will be placed on advanced supervision techniques, specialized testing techniques, and autonomy. Offered in the College for Adults.