Graduate Programs

PhD Program

Designed to prepare students for careers in vision science research and education. Special attention is given to a fundamental background in vision science in addition to the student's area of specialization. Requires a minimum of 30 graduate hours, including a research project, a written dissertation and defense of the dissertation.

MS Program

Provides a broad background in vision science and supervised research training in an area of specialization. Requires a minimum of 30 graduate hours, including a research project, a written dissertation and defense of the dissertation.

Combined Residency/Graduate Program

For ODs who are interested in combining the MS or PhD degrees with advanced clinical experience. Residencies are available in the areas of cornea and contact lens, pediatric, rehabilitation/low vision, family practice, primary care, and ocular disease. Separate applications must be submitted to the graduate and residency programs. Applicants must have an OD and be Texas Board eligible.

Combined OIMS Program

For OD students who are interested in both the clinical practice and basic, clinical or visual education. Special attention is given to a fundamental background in vision science in addition to the student's area of specialization. Requires a minimum of 30 graduate hours, including a research project, a written dissertation and defense of the dissertation.

Research Specializations

Glucoma

Nathan Felsen, Professor, PhD, University of Houston. Optimal resolution of retinal and optic nerve imaging when stratified by age, gender, race and, disease. Outcome of the optic nerve cup. Clinical applications for glaucoma treatment.

Vijay Krishna Raghunathan, Assistant Professor, PhD, University of Houston. Stereopsis in normal and abnormal binocular vision, clinical accommodative therapy, anterior chamber depth and angle.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Ocular Surface/Contact Lenses

Vijay Krishna Raghunathan, Assistant Professor of Optometry and Vision Science, University of Strathclyde, Glasgow, United Kingdom. Macromolecular, normal and diseased ocular surface, tear film, and melt strategies for blepharoconjunctivitis and dry eye.

Rachel R. Robson, Assistant Professor, OD, PhD, University of Houston. Ocular surface inflammation and risk for infection, and autoimmunity.

Optic Nerve

John Robson, Senior Research Professor, PhD, University of Cambridge. Retinal and optic nerve physiology, light adaptation, contrast sensitivity.

Optic Nerve

Vijay Krishna Raghunathan, Assistant Professor, PhD, University of Houston. Retinal physiology; noninvasive objective assessment of the visual pathway under normal and pathological conditions.

Structural and Combinatorial Chemistry, Any parallel change with diabetes and dry eye.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Rebecca Russon, Assistant Professor, OD, PhD, University of Houston. Noninvasive optometric research, dry eye, refractive and ocular health.

Retinal & Cortical Function and Structure

Han Cheng, Clinical Professor, OD, PhD, University of Houston. Neurophysiological and ophthalmic examination of the visual pathway under normal and pathological conditions.

Lisa Ostroin, Assistant Professor, OD, PhD, University of Houston. Structural and functional changes in myopia, side of light and color in eye growth, retinal physiology and imaging, glaucoma.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. Structural and functional changes in myopia, side of light and color in eye growth, retinal physiology and imaging, glaucoma.

David Berntsen, Assistant Professor, OD, PhD, University of Houston. Peripheral vision and neural visual pathways.

Vijay Krishna Raghunathan, Assistant Professor, PhD, University of Houston. Oculomotor control in strabismus, neural and non-neural strategies for tissue engineering, and regenerative medicine.

Financial Assistance Available for Graduate Students:

Teaching/Research Assistantships at $23,370/year, amount of support depends on PI degrees and experience.

Health insurance assistance by university.

Pre- and post-doctoral externships on National Eye Institute training grant available.

Awards submitted $3,600 to combined Grad Program/Residency students.

Other fellowships available from federal grants and institutional organizations.

Vijay Krishna Raghunathan, Assistant Professor of Optometry and Vision Science, University of Strathclyde, Glasgow, United Kingdom. Macromolecular, normal and diseased ocular surface, tear film, and melt strategies for blepharoconjunctivitis and dry eye.

Vijay Krishna Raghunathan, Assistant Professor of Optometry and Vision Science, University of Strathclyde, Glasgow, United Kingdom. Macromolecular, normal and diseased ocular surface, tear film, and melt strategies for blepharoconjunctivitis and dry eye.

Central and peripheral aberrations of the retina in vertebrates, molecular regulation of cell-cell interactions in the retina.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.

Jacek Rzepka, Assistant Professor, OD, PhD, University of Houston. The role and replacement contacts, contact lenses in adults and children.