**SENATE PROGRAM PROPOSAL FORM**

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<table>
<thead>
<tr>
<th>From: College of Optometry</th>
<th>Signed: Larry J. Davis, OD; x-5606</th>
<th>Date: 08/28/12</th>
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**From:** College of Optometry  
**Signed:** Larry J. Davis, OD; x-5606  
**Date:** 08/28/12

**Title of Degree, Minor, or Certificate Program:** Ph.D. in Vision Science

**Section and year** 20072008 of most recent Bulletin.

If other departments are affected by this proposal, please secure “sign-offs” and indicate for each department the following:

<table>
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<tr>
<th>Department</th>
<th>Contact Person</th>
<th>Phone #</th>
<th>Proposal received:</th>
<th>No major objections, Objections</th>
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**Current Bulletin listing:**  
**Proposed Bulletin listing:**  
**Rationale:**

**Graduate Studies**  
**Vision Science**  
Vision science is a multidisciplinary area concerned with the study of normal and anomalous vision. The goal of this program is to train the next generation of researchers in clinical and basic vision science, to conduct research, and to educate faculty for schools and colleges of optometry. Students will be required to integrate basic skills in vision science with focal studies in an area of research emphasis.

This program will emphasize research aimed at new treatments and cures for vision disorders, as well as research in basic mechanisms of visual functions. The College of Optometry offers both an M.S. degree and a Ph.D. degree. Students may apply to the Graduate School for admission to either the M.S. or the Ph.D. program.

**Admission Requirements**  
Students must have the appropriate
background for graduate training in vision science and appropriate undergraduate courses for their anticipated research emphasis. Applicants must have a bachelor's degree from an accredited college or university within the United States or from an equivalent institution outside the United States. To be admitted as regular graduate students, applicants must have a grade point average of at least 3.0 in their overall undergraduate work, in their undergraduate major, and in any post baccalaureate academic work. Students must arrange for transcripts to be submitted from all postsecondary academic work and to have at least three letters of recommendation sent by faculty members at previously attended colleges and universities. Students must also submit GRE scores (verbal, quantitative, and analytic). Applicants to the M.S. program must have combined scores on the verbal and quantitative sections of at least 1000; applicants to the Ph.D. program must have combined scores of at least 1100. In addition, students from countries where English is not a primary language must submit TOEFL scores of 550 (paper based), 213 (computer based), or 80 (internet based) or better. All materials and scores must be submitted by March 1 if an applicant wishes to be considered for financial assistance for the Fall semester. Early applications are encouraged.

Master of Science in Vision Science

Degree Requirements
The M.S. degree requires 30 semester hours of course work, including the core courses. At least 24 of these hours will normally be taken from courses offered by the College
of Optometry, with no more than 10 of these in VisSci 6490, Graduate Research in Vision Science. Each M.S. student will be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

The core courses for this program are:
VisSci 6400, Sensory Processes and Perception
VisSci 6401, Visual Optics
VisSci 6402, Ocular Anatomy and Physiology
VisSci 6403, Psychophysical Methods and Experimental Design
VisSci 6404, Sensory Neuroscience

Special Topics, Individual Studies, and Advanced Topics courses in Vision Science are also offered.

Each M.S. student must also complete a thesis based on research conducted during the program. The thesis must be approved by a committee of at least three members of the graduate faculty, at least two of whom must be from the graduate faculty in Vision Science.

Ph.D. in Vision Science

Degree Requirements
The doctoral degree requires 60 semester hours of course work, including the core courses. Each Ph.D. student will also be required to demonstrate proficiency in a foreign language, computer language, advanced statistical methods, or another acceptable tool skill. The tool skill and level of proficiency must be selected in advance in consultation with the Graduate Committee in Vision Science. Students will
be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

Written qualifying examinations will be offered each semester. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session. Full time students must attempt qualifying examinations before beginning their third year of study. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session.

The preparation of the dissertation will be supervised by a dissertation committee which will be appointed by the Graduate Dean upon the recommendation of the Director of Graduate Programs in the College of Optometry. Input from the student's advisor will be solicited by the Director prior to finalization of the recommendation by vote of the Graduate Faculty. An oral examination of the written dissertation proposal will be conducted by the Committee. A public oral defense of the completed written dissertation is also required.

The core courses for this program are:

- VisSci 6400, Sensory Processes and Perception
- VisSci 6401, Visual Optics
- VisSci 6402, Ocular Anatomy and Physiology
- VisSci 6403, Psychophysical Methods and Experimental Design
- VisSci 6404, Sensory Neuroscience
- Special Topics, Individual Studies, and Advanced Topics courses in Vision Science
are also offered.