

# CURRICULUM

## Graduation Requirements

Completion of the program requires a total of 60 credit hours. 40 credit hours are from the research thesis (BVS 960 Thesis). The remaining 20 credit hours are course work which includes three required courses (BVS 901 Teaching in the Visual Sciences, BVS 902 Biostatistics, BVS 952 Ethics in Research), 2 core courses, and 2 elective courses.

A student will be recommended for the degree of Master of Science in Vision Science, provided the candidate:

- Has completed all prescribed academic requirements;
- Has completed a minimum of 60 quarter-hours of graduate credit;
- Is not on academic probation in the MS program, has a cumulative grade point average of 3.0 or higher, and has no outstanding grade which is incomplete;
- Has completed the Master's research requirement of successful defense of the Master's thesis and submission of a final bound copy of the thesis. The paper must be of publication quality.

The degree will not be conferred, and the diploma will not be issued until all graduation requirements are met.

## Transfer Policy

The Master of Science in Vision Science program does not accept transfer students or offer advanced standing under any circumstances.

## Courses

### Required Courses

Code	Title	Hours
BVS 901	Teaching in the Visual Sciences	2.00
BVS 902	Biostatistics	2.00
BVS 952	Ethics in Research	2.00
BVS 960	Thesis (variable credits)	0

### Core Courses

Code	Title	Hours
BVS 910	Ocular Anatomy & Physiology	2.00
BVS 910A	Ocular Anatomy & Physiology - A	4.00
BVS 920	Sensory Neuroscience	2.00
BVS 920A	Sensory Neuroscience A	4.00
BVS 940	Visual Optics	2.00
BVS 940A	Visual Optics A	4.00
BVS 950	Sensory Processes & Perception	2.00
BVS 950A	Sensory Processes & Perception A	4.00
BVS 951	Psychophysical Mthd & Exprmntl Dsgn	2.00
BVS 951A	Psychophysical Mth & Expmntl Dsgn A	4.00

### Elective Courses

Code	Title	Hours
BVS 900	Special Topics	0
BVS 911	Vegetative Physiology of the Eye	3.00
BVS 912	Visual Physiology of the Eye	3.00

BVS 913	Current Topics Tear Film & Dry Eye	3.00
BVS 914	Vegetative Physiology of the Cornea	3.00
BVS 921	Color Vision	3.00
BVS 924	Neurophysiology of Amblyopia	3.00
BVS 932	Ocular Pathology	3.00
BVS 957	Accommodation	3.00
BVS 959	Vision and Reading	3.00

## MS Research Thesis

The Master of Science in Vision Science (MSVS) at the SCCO emphasizes the development and execution of an original vision research project. Each student must write a paper based on the student's research activities. The paper must be of publication quality.

A Master's thesis describing this project is required for completion of the program and is reviewed by a Thesis Committee. Time spent planning, carrying out the research project, data analysis, and writing the thesis will be assigned Course BVS 960 Thesis. This can be from 1 – 12 credits per quarter. **Total minimum research thesis credits = 40 credits for the MS degree.** One credit of research thesis is equivalent to a minimum of 2 hours work per week for a 10-week quarter. The thesis advisor in consultation with the student will determine the quarterly schedule for this course. A maximum of 50 credits can be taken in BVS 960 Thesis.

The MS degree also requires a defense of the thesis. This will be before the Thesis Committee, Graduate Committee, and a general audience. The defense will entail a presentation of the research with results followed by questions from the audience. The Thesis Committee will then determine if the student passed the thesis defense. Appendix B contains the thesis defense evaluation form. A recommendation will be made to the Assistant Dean of Graduate Studies and the Graduate Committee. Successful completion of the thesis defense is required before the student will be allowed to participate in the graduation ceremonies. The date on the MSVS diploma will be the end of the quarter in which the complete thesis is submitted to the library for binding.

## Thesis Advisors

MSVS thesis advisors need to have a specific set of skills to supervise an MSVS candidate in training. The list below gives the specific requirements to be an MSVS thesis committee chairperson or thesis committee member.

1. The thesis committee chairperson should have previous research experience. This individual must be able to design and carry out projects that are typical of a research-based MS degree. Evidence of this ability would be holding an MS or PhD degree in vision science or a research-related field where a research project was required. Knowledge in the field of vision is required and publications of vision-related research studies in peer-reviewed journals would be evidence. In addition to the above requirements, thesis committee chairpersons should have the ability to supervise student researchers in an original research project. Evidence would include previously serving as a thesis committee member, by supervising non-graduate students in research projects, or a record of other collaborative activities.
2. Thesis committee chairpersons must be full-time (75% or greater) faculty at SCCO.

3. Thesis committee members can be faculty from any department at MBKU or other institutions. The thesis committee members should complement the knowledge and experience of the committee chairperson. A background in research is required. This can be an MS or PhD in a research field or research publications in peer-reviewed journals.
4. Thesis committees consist of a minimum of 3 members (1 Chair and 2 members) to a maximum of 5 members (1 Chair and 4 members).