Oral Science, Ph.D.

Learning Outcomes

Acquisition of Broad-Based Foundational Knowledge in Oral Science

• Demonstrate a broad-based understanding in the scientific disciplines relevant to oral science.
• Demonstrate mastery of the literature and background knowledge pertaining to one’s chosen area of research.
• Understand the principles of biostatistical analyses and appropriate engagement with biostatisticians.

Development of Critical Thinking Skills

• Critically analyze primary scientific literature.
• Rationally debate and defend scientific viewpoints using scientific principles and critical analysis skills.
• Demonstrate problem-solving skills.

Understanding of the Scientific Method and its Application

• Formulate hypotheses or experimental objectives that address knowledge gaps in the literature.
• Formulate a logical and feasible approach to test a hypothesis or accomplish research objectives.
• Critically evaluate results and draw appropriate conclusions from the data.

Proficiency in Research

• Conduct research in a responsible and ethical manner.
• Carry out an in-depth research project and contribute intellectually and technically to all parts of its development, execution, and analysis.

Proficiency in Scientific Communication

• Demonstrate proficiency in scientific writing as evidenced by first-author manuscripts and by composing grant applications.
• Organize, defend, and communicate ideas effectively in scientific oral presentations and settings.

Interpersonal and Leadership Skills

• Demonstrate an ability to work, when appropriate, in teams or collaborative settings with a diverse workforce.
• Develop leadership skills, commensurate with experience, facilitate group discussions, teach, and/or conduct meetings.
• Effectively mentor and motivate subordinates and/or peers.
• Respond appropriately to positive or negative feedback.

Completion of the program usually requires four to six years of full-time study. Students must maintain a cumulative g.p.a. of at least 3.00 to earn the degree.

Admission

Applicants to the Ph.D. program must meet the admission requirements of the Graduate College and those specified by the program. Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or at least 550 on the paper-based test. Acceptable scores on the International English Language Testing System (IELTS) or the Duolingo English Test (DET) also may be submitted.

Applicants to the Ph.D. program must submit a statement describing past research experience and current research interests, and state how completion of the Ph.D. program fits their career goals.

Applications and transcripts are reviewed and accepted on a continuing basis. A personal interview may be requested. Programs normally begin July 1 each year.

Requirements

The Doctor of Philosophy program in oral science requires a minimum of 72 s.h. of graduate credit, including advanced coursework and original research that culminates in the successful defense of a dissertation. Students must pass a comprehensive examination, prepare and gain approval of a research project, and complete and successfully defend a dissertation that describes the results of their research.