

DOCTOR OF PHILOSOPHY IN KINESIOLOGY

WITH A SPECIALIZATION IN MOVEMENT SCIENCE

The Movement Science Program at The University of Texas offers a broad spectrum of study germane to understanding the neural, mechanical, and developmental characteristics of human movement. The program is structured such that students have the opportunity to design a course of study that is commensurate with their research interests. Students usually specialize within one of three areas of Movement Science: Biomechanics, Motor Control and Learning, or Developmental Science: Pediatrics and Aging. However, the opportunity exists for combining two or all three of these areas into a more interdisciplinary movement science approach.

Admissions Requirements

In addition to meeting the Graduate School and departmental requirements (see pg. 19), the applicant must submit a letter of application to the Movement Science faculty that includes a statement of career goals and research interests. Three letters of recommendation from former professors are required. Whenever possible, a personal interview is recommended.

Final acceptance and continuation in the program are contingent upon sponsorship by a faculty member in Movement Science who will serve as the student's Academic Adviser. The admission of a student into the program and the selection of an adviser are by mutual agreement and are formalized in the letter of acceptance. Students applying to the Ph.D. program must have demonstrated capability of independent research by completing a thesis or publishing a research article.

Doctoral Degree Program Prerequisites

The prerequisites for doctoral study in Movement Science are a Master's degree in Kinesiology or a related field (e.g. biology, physiology, biomedical engineering) from an accredited college or university and the completion of specific courses in kinesiology or other disciplines covering the following areas:

1. Human Anatomy (e.g. Kin 324k)
2. Exercise Physiology (e.g. Kin 325k)
3. Biomechanics (e.g. Kin 326k)
4. Motor Control or Motor Learning (e.g. Kin 335 or Kin 336)

Persons may be admitted to the Doctoral program without these prerequisite courses provided they fulfill these requirements in their first year, either by advanced standing examination or by taking the necessary course(s) at The University of Texas, as noted above.

Courses completed at another college or university may be used to satisfy part or all of the requirements under the prerequisites provided such courses were completed prior to beginning graduate study at The University of Texas at Austin. Such courses may not be used to fulfill the requirements for a graduate degree at the University. It is the policy of the Graduate Studies Committee that all courses taken to fulfill prerequisite requirements be taken on a letter grade basis.

After entering the program, the student should request a prerequisite form from the Graduate Secretary in Belmont 710. The completed form should be submitted to the program adviser for approval before it is submitted to the Graduate Adviser.

Program Requirements

1. * A comprehensive examination in the student's area of specialization is given typically following completion of two years of post-master's study at The University. In preparation for the comprehensive examination, students are required to demonstrate basic competency in one of the three areas listed below. Basic competency can be demonstrated by obtaining a grade of B or better in the appropriate graduate courses as shown below, or students have the option of testing out of any or all of these required courses.

Biomechanics. The following courses are required in preparation for the comprehensive exam: Biomechanics of Human Movement (KIN 395), Central Questions in Biomechanics and Motor Control (KIN 395), at least one of: Musculoskeletal Biomechanics (KIN 395) or Nonlinear Dynamics in Biological Systems (KIN 395), and one additional adviser approved course in Movement Science outside of Biomechanics.

Motor Control and Learning. The following courses are required in preparation for the comprehensive exam: Motor Control: Performance and Learning (KIN 395), Motor Control: Neuromuscular Bases (KIN 395), at least one of: Neuromuscular Aspects of Fatigue and Training (KIN 395) or Central Questions in Biomechanics and Motor Control (KIN 395), and one additional adviser approved graduate course in Biomechanics.

Developmental Science: Pediatrics and Aging. The following courses are required in preparation for the comprehensive exam: Motor Development Assessment (382), Physical Dimensions of Aging (KIN 395), one advanced topical seminar in Developmental Science, and one additional adviser approved course in Movement Science outside of Developmental Science.

2. The program of study will include Research Methods Topics 1: Proposal Writing (KIN 386) and Biomechanics Laboratory (KIN 382).
3. The program of study will include extensive research experience, with a minimum of six hours of independent study, and 18 hours of dissertation (KIN 999rw).
4. * Students must complete a minimum of nine hours in graduate-level statistics, to include Experimental Design and Statistical Inference (EDP 482K), Correlation and Regression (EDP 382K), and Survey of Multivariate Methods (EDP 382K), or appropriate mathematics.
5. Students must enroll in the Movement Science Graduate Seminar (Kin 196) every Fall and Spring semester until they advance to candidacy (minimum 3 credit hours).
6. * Supporting work from outside the Department of Kinesiology and Health Education must include a minimum of six hours in addition to the statistics requirement.

*Upon approval of the Graduate Studies Committee, courses from other institutions can be used to satisfy requirements in these areas.

Establishment of Program of Study

During the first year, the student and the academic adviser will develop, on the basis of the student's research interests, a program of study that will be presented for approval to the Graduate Studies Committee toward the end of the student's first year. During the first two years of post-master's study, the student should complete the course work required for the comprehensive examination in the area of specialization.

Advancement to Candidacy

Students are advanced to doctoral candidacy after completion of the following.

1. The student has passed the comprehensive examination. This exam is typically given following completion of the second year of post-Master's study at The University. The examination consists of both written and oral sections. The written section will include questions from the student's area of concentration as defined by the area core requirements. The faculty on the examining committee will be all faculty whose research or teaching lies within the area(s) being tested. The written sections of the examination must be successfully completed prior to the oral section. The oral section is scheduled one week after the written section. The written and oral sections of the examination, if not successfully completed, may be repeated only once.
2. Upon successful completion of the comprehensive examination, the student can be advanced to doctoral candidacy. The student and the supervising professor should recommend to the graduate adviser the names of the five faculty members whom they would like to have appointed to the dissertation committee. The student should contact the graduate secretary for assistance in completing the necessary paper work for advancement to candidacy. Only after the student has been advanced to candidacy and has the approval of the supervising professor, will the student be permitted to register for dissertation hours.

Dissertation

Under the supervision of the Supervising Professor and the Dissertation Committee, the student will prepare a written dissertation proposal and make an oral presentation of it to the Dissertation Committee and other interested persons. Interested students, faculty and especially GSC members are encouraged to attend the proposal presentation; however a quorum of the GSC is not required. At least one week prior to the scheduled presentation, the student is required (1) to send a copy of the proposal announcement to each GSC member along with an attached four to five page summary of the proposal; (2) to post notices of the proposal presentation, and (3) to submit two copies of the complete dissertation proposal to the Graduate Adviser's Office. The proposal will include an appropriate literature survey, extensive methodology, and preliminary results. The proposal should be presented during the student's third year of doctoral study, following completion of the comprehensive exam.

The dissertation is required of all candidates and must be an original contribution to scholarship based on independent research in the major area. It is expected to be a significant contribution to the body of the current research. Writing of the dissertation will

be supervised by the Dissertation Committee, which is appointed by the Graduate Dean and will include the Supervising Professor, and at least two other members from the Motor Behavior faculty. At least one member must be from outside the departmental Graduate Studies Committee.

Once the Dissertation Committee is appointed, the Graduate Studies Committee requires the Committee to meet at least once a semester to review the student's progress. Following the meeting a progress report must be filed with the Graduate Adviser. It is the responsibility of the Supervising Professor to ensure that these requirements are fulfilled.

Final Oral Examination (Defense of the Dissertation)

The candidate must present a formal seminar on the dissertation research as a part of the final oral examination. All interested faculty members and graduate students will be encouraged to attend the formal seminar and to ask questions about the candidate's research. Evaluation of the candidate's performance will be decided by members of the Dissertation Committee. It is the responsibility of the student and the supervising professor to schedule the formal seminar through the office of the Graduate Adviser.

Student Evaluation

Students must make satisfactory progress and will be evaluated for satisfactory progress each year, especially regarding completion of course work, GPA, and research involvement.

1. Incompletes. Graduate students are expected to complete courses within the time frame of the semester. In unusual cases where this semester framework is not in the best interest of the student, the professor may report the symbol X (incomplete) in place of a grade. The student must then complete the course requirements and the instructor must report a final grade by the end of the grade reporting period in the student's next long-session semester of enrollment. If this deadline is not met, the symbol X is converted to the symbol I (permanent incomplete). The symbol I cannot be converted to a grade. The GSC considers two or more grades of incomplete including permanent incompletes as unsatisfactory progress. (TAs, GRAs, etc., may acquire no more than two grades of X or one grade of X and I. They cannot have two or more grades of I.)
2. GPA. The student is expected to maintain the minimum GPA of 3.0 required by the Graduate School. This GPA pertains to course work within the major department, to course work outside the department and also to the overall combined GPA.
3. Research Involvement. It is the responsibility of the student to meet with the Academic Adviser to be certain that all research expectations are made clear. Students who are not actively involved in research will be considered as not making satisfactory progress.

Proposed Program Schedule

1. The sequencing of course offerings favors admission in Fall semester.
2. Prerequisites, if any, should be completed in the first year of study.
3. Toward the end of the first year of doctoral study, the program of study should be established and presented to the Graduate Studies Committee for approval.
4. By the end of the second year of post master's study, organized course work in the program of study should be near completion, and the comprehensive examination should be taken.
5. Following successful completion of the comprehensive examination, the student may be advanced to candidacy.
6. In the year following the successful completion of the comprehensive examination, the dissertation proposal should have been defined and presented to the Graduate Studies Committee.

Time Limits

All course work to be included in the program of study must at the time of admission to candidacy have been taken within the previous six years. Once advanced to candidacy, the doctoral program must be reviewed by the Graduate Studies Committee if the degree has not been completed within three years from the date of admission to candidacy. At this time the Committee may recommend additional course work, further examinations, or termination of candidacy. The program is also subject to review by the Graduate Dean.