REQUESTIONS FOR THE Ph.D. DEGREE

Department of Kinesiology
School of Public Health and Health Sciences
University of Massachusetts Amherst

Graduate Faculty

Dr. Catrine Tudor-Locke, Professor
Department Chair
ctudorlocke@umass.edu

Dr. Sofiya Alhassan, Associate Professor
Graduate Program Director (GPD)
alhassan@kin.umass.edu

Dr. Edward Debold, Associate Professor
Associate GPD
edebold@kin.umass.edu

Dr. Brian Umberger, Associate Professor
Athletic Trainer Graduate Advisor
umberger@kin.umass.edu

Dr. Sofiya Alhassan, Associate Professor
alhassan@kin.umass.edu
Dr. Katherine Boyer, Assistant Professor
kboyer@kin.umass.edu
Dr. Graham Caldwell, Associate Professor
gc@kin.umass.edu
Dr. Stuart Chipkin, Research Professor
schipkin@kin.umass.edu
Dr. Julia Choi, Assistant Professor
jtchoi@kin.umass.edu
Dr. Ned Debold, Assistant Professor
edebold@kin.umass.edu
Dr. Joseph Hamill, Professor
jhamill@kin.umass.edu
Dr. Mark Miller, Assistant Professor
markmiller@kin.umass.edu
Dr. John Sirard, Assistant Professor
jsirard@kin.umass.edu
Dr. Richard van Emmerik, Professor
rvanemmerik@kin.umass.edu
Dr. Brian Umberger, Associate Professor
umberger@kin.umass.edu
Dr. Sarah Witkowski, Assistant Professor
switkows@kin.umass.edu

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REQUIREMENTS FOR THE PH.D. IN KINESIOLOGY
(Updated 12/1/2015)

I. Admission
Faculty in the Department of Kinesiology perform research in several areas. A prospective student must indicate the intended Major area of academic specialization and secure permission to work with a specific advisor PRIOR to formal acceptance into the program. The following are Ph.D. advisors for each area, although there is considerable overlap across areas for many professors:

<table>
<thead>
<tr>
<th>Physiology</th>
<th>Physical Activity</th>
<th>Motor Systems</th>
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<tbody>
<tr>
<td>Muscle, Molecular, &amp;</td>
<td>Fitness, Wellness,</td>
<td>Biomechanics, Motor</td>
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<tr>
<td>Cardiovascular Physiology,</td>
<td>Health, Physical Activity</td>
<td>Control, Neuroscience</td>
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<tr>
<td>Energy Metabolism</td>
<td>Measurement, Interventions</td>
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Ned Debold  
Jane Kent  
Mark Miller  
Sarah Witkowski  
Sofiya Alhassan  
Patty Freedson  
John Sirard  
Catrine Tudor-Locke  
Katherine Boyer  
Graham Caldwell  
Julia Choi  
Joseph Hamill  
Stephanie Jones  
Brian Umberger  
Richard van Emmerik

Sponsorship:
“Sponsorship” indicates a commitment on the part of a faculty member to serve as academic advisor, and to provide research training and financial support to a student. Graduate Assistantships (TA or RA) include a stipend, health insurance and a tuition waiver. Prior to admission, a prospective student should correspond (phone, e-mail, letter) with a potential faculty advisor concerning possible sponsorship for the Ph.D. It is to the applicant’s advantage to contact potential faculty sponsors early in the application process. If you inquire before you submit your application to the Graduate School, include a resume, a summary of previous relevant course work, research experience (i.e. Masters Thesis summary or equivalent), transcripts (if available), and GRE scores. A face-to-face meeting with a prospective faculty advisor (on campus and/or meeting at a conference or other off campus site) is greatly encouraged.

II. Requirements for the Ph. D.

A. Academic Deficiencies
Depending on the student’s previous academic coursework and training, selected courses may be required to strengthen the student’s background academic preparation. If not present in their training prior to admission, the student is required to address the following Academic Deficiencies. Note that there are several UMass Kinesiology classes that can fulfill each of these deficiencies; the student and their advisor will decide which class is appropriate. When the deficiency is addressed with a 500 or 600 level class, the student can use these credits towards their Ph.D. degree provided they attain a grade of B or better.

1. Human Anatomy & Physiology  
2. Exercise Physiology  
3. Biomechanics  
4. Motor Control

Acceptable UMass courses (Pick one in each deficient area)

1. Human Anatomy & Physiology  
   Kin 270, 272 [class(es) most appropriate for student’s area]
2. Exercise Physiology  
   Kin 470, 570, 585, 670
3. Biomechanics  
   Kin 430, 530, 535, 597J
4. Motor Control  
   Kin 460, 560, 565 or independent study
If there is doubt concerning a class taken a priori at another school, the faculty members who teach the UMass courses listed above will review the course syllabus from the class to decide whether its content meets our requirements for competency.

For individual students, other academic deficiencies may also need to be addressed. For example, organic chemistry may be required for a student in the Physiology or Physical Activity areas, while a Motor Systems student may be required to take selected engineering courses. The student’s faculty advisor will decide specific undergraduate course deficiencies.

Competency in computer literacy (knowledge and practice in the use of spreadsheets, word processing, graphics, internet usage) is expected of all Kinesiology graduate students.

B. Qualifying Exam
The Qualifying Exam (QE) is designed to test each doctoral student’s general knowledge of kinesiology, as well as to assess written communication skills. The QE is taken in the spring of the first year of doctoral work. A reading list is provided at the beginning of the spring semester as a guide for those taking the QE. Topics are grouped using the 3 research areas in our graduate program: Motor Systems, Physical Activity & Health, and Physiology. Preparation for the exam is student-driven; a collaborative approach is strongly encouraged. To set aside a common time for preparation and discussion, all students preparing for the QE register for Kin 697Q. The QE is a written exam given over a 2-day period, and a passing grade must be earned to remain in the doctoral program.

C. Credit Requirements
All credit requirements are minimum recommendations. Faculty sponsors may require additional coursework and research credits, with specific requirements made on a case-by-case basis.

A minimum of 72 credit hours post-baccalaureate is required for the Ph.D. degree. This includes both research and formal course credits. Graduate seminar credits (Kin 891) are required above the 72-hour credit minimum.

SPECIFIC REQUIREMENTS

All Ph.D. students must complete 24 credits in formal coursework, 30 research credits, and 6 credits in Graduate Seminar while in residence at UMass Amherst.

Formal coursework credits: 24 credits (minimum). A student’s formal coursework plan should include courses (both within Kinesiology and outside the department) that will establish the expertise necessary to further their research goals. To encourage breadth of knowledge within Kinesiology, at least 12 credits should be taken in the student’s Major area, and a minimum of 3 credits is required in one of the other two program areas (Physiology, Physical Activity, Motor Systems).

Research credits: 30 credits (minimum). The doctoral degree in Kinesiology is designed to foster excellence in research. Students are therefore required to be involved in research projects throughout their Ph.D. program. Research credits are attained through independent study (Kin 596, 696, 796, etc.) based on active research projects within, and when appropriate, outside the department. The 30-credit requirement includes 12 credits for the dissertation (Kin 899).
**Graduate seminar:** A minimum of 6 credits (1 credit per semester). Ph.D. students must enroll in the graduate seminar (Kin 891) every semester they are in residence. Ph.D. students will be required to present in seminar at least twice. Graduate seminar will be graded on a Pass/Fail basis.

**D. Comprehensive Exam**

Doctoral students are eligible to take their Comprehensive Exam after passing the Qualifying Exam, and their advisor agrees that the student is ready. In most cases, this exam will occur toward the end of the 2nd year as a doctoral student. Students who have completed most or all of their formal coursework will be best prepared for this exam. The exam is designed as a pre-proposal evaluation of the student’s understanding of the general field of study to be pursued in the dissertation. The Comprehensive Exam Committee will consist of 3 UMass faculty, chaired by the student’s advisor. One of the three committee members may be external to the department, if appropriate. This committee will likely form the basis of the dissertation committee, although this is not a requirement. The advisor will inform the Graduate Program Director (GPD) of the Committee’s membership and the date of the oral exam at least 3 weeks in advance of the oral.

The exam will consist of both a written document and an oral exam. Following discussions with their advisor and each member of their committee to determine the research area, the student will prepare a 4 to 5 page (single-spaced, 1” margins) justification of the area of research to be undertaken for the dissertation (references outside this page limit). The justification will succinctly summarize the “state of the science” in the chosen discipline and provide a rationale and direction for the specific area of research that will form the basis of the proposal. When deemed ready by the advisor and following acceptance of the document by the Comprehensive Exam Committee, an oral exam will be held by the committee to evaluate the student’s depth of understanding of the area of research. Part of the discussion will also serve as a “pre-proposal” meeting in which the student will delineate and defend the questions to be addressed in the proposal. One of the outcomes of the meeting should be an understanding of the work required (more critical review of the literature, sharpening of the objectives, preliminary data to show proof of concept, etc.) before the student is prepared to present the formal proposal. The intent of this part of the discussion is for the student to defend the proposal topic, not the proposal itself. The committee will decide if the student has sufficient understanding of the area to be advanced to candidacy and move forward on the proposal. If the Comprehensive Exam Committee is not satisfied with the student’s level of understanding, they will determine what steps are required to remedy the situation to prepare the student for a subsequent re-examination. After the re-examination, if the committee still does not believe the student has sufficient understanding, the student must leave the program.

**E. Dissertation**

Following successful completion of the Comprehensive Exam, the Ph.D. student is advanced to candidacy and should prepare a dissertation proposal. The dissertation committee will comprise at least three graduate faculty members (a minimum of two from Kinesiology and at least one UMass Amherst faculty member from outside the department). The committee should be formed before the dissertation proposal; the student’s advisor should send an e-mail to the GPD with the names, affiliations and role (e.g. Chair, Member, Outside Member) of the proposed committee. The GPD will submit the proposed committee to the Graduate School for approval.

The proposal must include Chapter I (Introduction), Chapter II (Literature Review), and Chapter III (Methods). If possible, the proposal will be presented at graduate seminar with committee members, other faculty, and students in attendance. This presentation will be a formal seminar that is open to the university community. At least one week (preferably two weeks) prior to the proposal date, copies of the proposal document should be presented to the dissertation committee. At the same time, a copy of the proposal document, a short abstract, and an announcement flyer must also be given to the GPD for public display in the Kinesiology Department.
The dissertation defense cannot occur until seven months have elapsed following the filing of the approved dissertation proposal with the Graduate School.

The final dissertation will include the proposal (Chapters I to III) and two or more manuscripts that are either published or prepared for submission to peer reviewed journal(s). The dissertation defense will be an open formal seminar (may be during graduate seminar) with committee members in attendance along with other faculty and students from the university community. In accordance with Graduate School rules, the student must notify the GPD of the dissertation title and the defense date, time, and location so that a memo from the GPD may be sent to the Graduate School no later than 4 weeks in advance of the defense date. As with the proposal, copies of the dissertation should be presented to the committee at least one week (preferably two weeks) prior to the defense date. At the same time, a copy of the dissertation, a short abstract, and an announcement flyer must also be given to the GPD for public display in the Kinesiology Department.

**Further Degree Completion Details**

**Kinesiology Department**
Prior to the appropriate Degree Deadline, the student should submit the following to the GPD Secretary:

- Unofficial transcript of completed UMass classes from SPIRE.
- Completed Degree Checklist (available on the Kinesiology website).
- Degree Eligibility Form completed and signed by the student. After the GPD and Department Chair sign, the form will be returned to the student for submission to the Office of Degree Requirements in the Graduate School.
- Completed SPHHS Exit Survey (Get from GPD secretary)
- A receipt for prepayment of dissertation binding for each committee member plus one for the department. The GPD will not sign the degree eligibility form until the prepaid binding receipt has been submitted.

**Graduate School Requirements**
In addition to Kinesiology requirements, students must satisfy all Graduate School requirements. The University confers degrees three times a year (February, May and September) and sponsors one formal graduation ceremony held in late May. To apply for a February degree, all paperwork must be submitted to the Graduate School by mid-January; for a May degree, by end of April; for a September degree, by the end of August. September degree recipients of a preceding year, February degree recipients, and May degree applicants are eligible to participate in the May graduation ceremony. [Contact the Office of Degree Requirements at the Graduate School for exact dates for all deadlines.] Other helpful resources are the Graduate School Handbook and Guidelines for Doctoral Dissertations, both found online at the Graduate School web site [http://www.umass.edu/gradschool](http://www.umass.edu/gradschool).

From the Graduate School, all candidates must satisfy the following requirements:

- Complete all course work
- Comprehensive Exam passed
- Dissertation Committee appointed by the Graduate Dean (recommended by GPD)
- Dissertation Proposal received by Graduate School at least 7 months prior to Dissertation Defense
- Dissertation Defense passed (Must be scheduled and passed before deadline date)
- Submit Doctoral Degree Eligibility Form signed by the student, the Graduate Program Director, and the Department Chair
- Electronic submission of dissertation. See related information on the Graduate School web site [http://www.umass.edu/gradschool](http://www.umass.edu/gradschool).
III. Evaluation of Satisfactory Progress

Progress toward the Ph.D. degree: The Ph.D. candidate is expected to demonstrate academic excellence worthy of the highest academic degree. Satisfactory and reasonable progress toward completion of the Ph.D. degree entails considerably more than completion of formal course work. The Ph.D. student is expected to grow intellectually, not only through acquisition of knowledge and basic research competencies, but also by developing independent thinking beyond the immediate experiences of the classroom and laboratory. The ability to devise strategies for assessment of the validity and limitations of available knowledge should go hand-in-hand with mastery of technical skills and increased comprehension of data systems. Since the linkages between theoretical and applied knowledge cannot always be explicitly presented in formal course work, the Ph.D. candidate is expected to nurture intellectual growth through a variety of experiences beyond formal course requirements, such as:

1. participation as a research subject,
2. literature searches,
3. development of new equipment and test methodologies,
4. involvement in the planning of research projects,
5. participation in daily laboratory activities and assisting in data collection,
6. data analysis including use of statistical methods,
7. formal write-up of research papers leading to submission for publication,
8. presentations at scientific conferences,
9. writing of grant proposals,
10. consultation with and advising of newer graduate students,
11. attending conferences and formal lectures,
12. computer skill development,
13. taking additional course work to improve essential skills.

Progress evaluation: At the end of each academic year the Ph.D. student will submit an Annual Progress Report to their Ph.D. advisor. The Ph.D. advisor will schedule a conference with the student to review and evaluate the report, make suggestions for improvement, and evaluate progress toward the Ph.D. degree as Satisfactory, Marginal, or Unsatisfactory. The Annual Progress Report will then be given to the GPD and will become a permanent record in the student’s folder.

In the event of unsatisfactory progress, a faculty advisor may withdraw their sponsorship of a student. In this unusual circumstance, the faculty member will notify the student and the GPD. The Graduate Program Director will review the student’s Annual Progress Report (s) and discuss the matter with the student and the Ph.D. advisor. The GPD may elect to convene the department graduate faculty to review the case and make a recommendation for action. The graduate faculty may elect to interview the Ph.D. student and/or the Ph.D. advisor before making a decision. If the GPD concurs with the faculty member’s request for withdrawal of Ph.D. sponsorship, they will notify the University Graduate Dean for final decision and action. If the Graduate Dean confirms the request for withdrawal of Ph.D. sponsorship, the student will be formally withdrawn from the Ph.D. program.

Revised 12/11/15