

October 26, 2007

TO: Kaveh Tagavi  
Senate Council  
201 Main Bldg.  
CAMPUS 0032

Dear Dr. Tagavi,

At its meeting on October 25, 2007 the Graduate Council voted to approve the proposals for Graduate "Certificate in Physiology Teaching. The Council submits these recommendation for the consideration of the Senate.

Thank you for your attention to this request.

Sincerely Yours,

Jeannine Blackwell, Dean  
The Graduate School

Cc: Sheila Brothers

University of Kentucky  
Department of Physiology

Proposal for a Graduate Certificate in Physiology Teaching

**Purpose:**

The graduate certificate in physiology teaching provides a mechanism for students to document their competency in the basic skills necessary to teach a comprehensive physiology course. The Certificate will be accessible to participants enrolled in a wide range of biomedical disciplines, but it will be especially valuable to medical science graduate students that anticipate a career in academic physiology.

This 15-hour certificate is significant in that many doctoral programs in the medical sciences emphasize preparation for a research-oriented career but do very little formal instruction related to education and teaching. Our department has historically placed a high emphasis on the training of graduate students for both research and teaching careers. Many of our faculty have been recognized at the local and national level for their teaching contributions. This certificate will recognize and document that emphasis for the students that choose to complete the certificate requirements.

As research in physiology becomes more specialized, utilizing molecular and cellular approaches, there is a very real and distinct demand for physiology instructors that have experience in all levels of physiology teaching, especially systems physiology. Many of our graduates have gone on to careers that emphasized teaching and this certificate provides tangible evidence of appropriate preparation.

Participants who are pursuing graduate degrees may apply for admission to the Certificate and complete their requirements concurrently.

**Graduate Certificate Associates:** (all are full members of the graduate faculty)

Dexter F. Speck, Ph.D.  
Sandra Legan, Ph.D.  
David C. Randall, Ph.D.  
Michael B. Reid, Ph.D.  
Ok-Kyong Park-Sarge, Ph.D.

**Graduate Certificate Director:**

Full Member of Graduate Faculty (Dexter F. Speck – subject to appointment by the Dean of the Graduate School)

# Graduate Certificate in Physiology Teaching

## Curriculum

### Objectives:

Prepare students for teaching of medical sciences with a special emphasis on physiology.

Provide students with a practical, hands-on teaching opportunity to develop their teaching skills and their teaching portfolio.

Provide students with both theoretical and practical information related to teaching and learning styles.

### Required Courses:

PGY 502 (5) - Principles of Systems, Cellular and Molecular Physiology  
*Medical Physiology (PGY 818) may be substituted. This will be important for potential MD/PhD students.*

PGY 602 (3) – Readings in Systems, Cellular and Molecular Physiology

PGY 615 (2) – Seminar in Teaching Medical Sciences

PGY 616 (2) – Practicum in Teaching Medical Science

Elective Course (3 hours) - An advanced Physiology course or another option approved by the Graduate Certificate Director

Examples include:

PGY 601 – Mammalian Endocrinology

PGY 604 – Advanced Cardiovascular Physiology

PGY 606 – Advanced Neurophysiology

PGY 608 – Advanced Renal Physiology

PGY 609 – Advanced Respiratory Physiology

PGY 630 – Special topics

### Submission of a Teaching Portfolio:

The final requirement for the certificate is submission of a suitable teaching portfolio to the Graduate Certificate Director. This portfolio should include most, if not all, of the following components:

1. a statement of teaching philosophy,
2. a description of teaching experience (responsibilities),
3. course planning artifacts such as sample course syllabi, lesson plans, assignments, exams,
4. evidence of teaching effectiveness: summary of student feedback, department evaluations,
5. teaching awards and recognition,
6. professional development efforts.

## Admission Requirements and Application Procedure

Applicants must satisfy the minimum Graduate School Requirements for admission to a certificate program (which are identical to those for enrollment as a postbaccalaureate graduate student):

Students enrolled in (or applying to) a graduate degree program or postbaccalaureate status in order to complete the certificate are eligible to apply for admission.

Applicants for admission to the Graduate Certificate in Physiology Teaching must be approved by the Certificate Director, who shall notify the Graduate School in writing of the student's admission.

Admission to the graduate certificate curriculum or award of the graduate certificate does not guarantee admission to any degree program.

Admission to the Graduate Certificate in Physiology Teaching may be limited so that the faculty and resources are not overwhelmed.

## Graduate Certificate in Physiology Teaching

### Graduate Certificate Requirements

As required by the Graduate School, a student must maintain a minimum GPA of 3.0 in the set of courses required for completion of the Graduate Certificate. In addition, no grade of C will be permitted in any of the courses pertaining to this certificate.

### Award of the Graduate Certificate in Physiology Teaching

When a student enrolled in the UK Graduate School has successfully completed the last required course, has satisfied the GPA and grade requirements, and submitted a satisfactory Teaching Portfolio, the Director shall send a completed, signed Graduate Certificate Completion Form to the Dean of the Graduate School verifying that the student has fulfilled all requirements for the certificate and requesting award thereof. The Graduate School shall then issue the student's certificate and officially notify the University Registrar of the awarding of the certificate for posting to the student's permanent transcript.

### Benefits

#### For Participants

- Document educational experience and competency in physiology instruction.
- Provide practical experience and skill development.
- Develop a Teaching Portfolio

#### For Department

- Improve the job placement and opportunities for our graduates.
- Provide recognition for ongoing efforts of both faculty and students in the area of medical sciences education.
- Provide career opportunities for masters students in medical science disciplines that may be interested in teaching careers.
- Assist in the training of qualified teaching faculty for our undergraduate courses (PGY 207).

#### For the University of Kentucky

- Strengthen UK's reputation as an institution that values and actively fosters quality instruction.
- Enhance our reputation throughout the state as graduates begin their teaching careers.
- Provide a pool of trained physiology educators for colleges throughout the state of Kentucky.



UNIVERSITY OF KENTUCKY

Dr. Jeanine Blackwell  
Graduate School Dean  
335 Patterson Office Tower  
University of Kentucky  
Lexington, KY 40536-0027

**College of Medicine**

*Department of Physiology  
MS508 UKMC  
Lexington, KY 40536-0298  
(859) 323-5254  
Fax: (859) 323-1070  
[www.uky.edu](http://www.uky.edu)*

Dear Dr. Blackwell:

Enclosed please find a proposal and supporting letters for establishing a Graduate Certificate in Physiology Teaching. We believe this Certificate will bring great value for both our students and the Commonwealth.

Thank you for your consideration. Please contact me if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dexter F. Speck'.

Dexter F. Speck  
MS-515 Medical Center  
Department of Physiology, 0298  
(859) 323-5383  
[dfspeck@uky.edu](mailto:dfspeck@uky.edu)



UNIVERSITY OF KENTUCKY

**College of Medicine**

*Department of Physiology  
MS508 UKMC  
Lexington, KY 40536-0298  
(859) 323-5254  
Fax: (859) 323-1070  
www.uky.edu*

July 3, 2007

Dr. Jeanine Blackwell  
Graduate School Dean  
335 Patterson Office Tower  
University of Kentucky  
Lexington, KY 40536-0027

Dear Dr. Blackwell:

I enthusiastically support the proposed Graduate Certificate in Physiology Teaching. Our department has historically placed an unusually high emphasis on developing both teaching and academic skills for our graduates. This certificate recognizes and documents the importance of that endeavor and provides our students with credible and tangible evidence of their preparation. Aspects of the certificate will secondarily enhance our departmental undergraduate teaching mission as well. We firmly believe that this certificate will be of significant interest and that it will benefit our students as well as the state of Kentucky.

I fully support this proposal.

Sincerely,

Michael B. Reid, Ph.D.  
Professor and Chair  
Department of Physiology