

Faculty Senate Office Ashe Administration Building, #325 1252 Memorial Drive Coral Gables, FL 33146

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#### MEMORANDUM

To:

Donna E. Shalala, President

From:

Richard L. Williamson

Chair, Faculty Senate

Date:

November 21, 2013

Subject: Faculty Senate Legislation #2013-21(B) – Designated Degree Change from a Bachelor

of Science Degree in Education (BSEd) TO a Bachelor of Science (BS) Degree in

Exercise Physiology, School of Education and Human Development

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The Faculty Senate, at its November 20, 2013 meeting, voted unanimously to approve the proposal from the School of Education and Human Development for a designated degree change from a Bachelor of Science degree in Education (BSEd) TO a Bachelor of Science (BS) degree in Exercise Physiology.

The purpose of the degree name change to Bachelor of Science degree in Exercise Physiology is to ensure that the degree accurately reflects the nature of the coursework required of that program. The change will alleviate some of the concerns and confusion expressed by undergraduate students and their medical school advisors who have been informed that the current degree does not reflect the rigorous science requirements of the major. Also, the change is accompanied by curricular changes, which contain the addition of Math, Statistics, and Research Method courses.

The proposal of the School of Education and Human Development as modified by a friendly amendment is enclosed for your reference.

This legislation is now forwarded to you for your action.

RLW/rh

Enclosure

cc: Thomas LeBlanc, Executive Vice President and Provost Isaac Prilleltensky, Dean, School of Education and Human Development Arlette Perry, Chair, Kinesiology and Sports Sciences

CAPSULE: Faculty Senate Legislation #2013-21(B) – Designated Degree Change from a Bachelor of Science Degree in Education (BSEd) TO a Bachelor of Science (BS) Degree in Exercise Physiology, School of Education and Human Development

APPROVED: DATE: 12913 (President's Signature)
OFFICE OR INDIVIDUAL TO IMPLEMENT: DEAN PRIMELTENSKY
EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY (if other than June 1 next following)
NOT APPROVED AND REFERRED TO:
REMARKS (IF NOT APPROVED):

### Executive Summary: Exercise Physiology

On behalf of the School of Education and human development (SOEHD) and the Kinesiology and Sport Sciences (KIN) department, we are requesting a designated degree change from the Bachelor of Science degree in Education (BS) to a Bachelor of Science degree in Exercise Physiology.

The purpose of the degree change in Exercise Physiology is to ensure that the degree accurately reflects the nature of the coursework required of that major. All exercise physiology majors must take pre-requisite courses in general chemistry, organic chemistry, biochemistry and basic human physiology before taking coursework that includes exercise physiology, exercise biochemistry, neuromuscular physiology, and bioenergetics. We also hope that this degree change will alleviate some of the concerns and confusion expressed by undergraduate students and their medical school advisors who have been informed that a degree in education does not reflect the rigorous science requirements of the major. Therefore we are requesting the BS be changed to a Bachelor of Science degree in Exercise Physiology.

Also included are curricular changes which contain the addition of Math, Statistics, and Research Methods courses. These curricular changes are being proposed to resemble the math and science requirements for similar programs at the University of Miami that offer a Bachelor's of Science degree.

On October 22nd, 2012 the KIN Department unanimously voted to approve the designated curriculum and degree changes for Exercise Physiology (See Appendix A). On November 5th, 2012, the Undergraduate Curriculum Committee (See Appendix B) also approved the degree/curricular change. After approval by School Council on January 25th, 2013, the SOEHD Faculty successfully voted to approve the degree/curricular change (See Appendix C).

Find enclosed, an expanded proposal for the degree/curricular change using the model adopted by the School of Nursing. Additionally, find attached approval letters from the Dean of the School of Nursing (See Appendix D) and a graduate faculty advisor for the Department of Physiology and Biophysics (See Appendix E), both of whom direct programs requiring pre-requisite science courses similar to Exercise Physiology. We have also included a letter of support from the Chief of the Division of Sports Medicine (See Appendix F), who works very closely with both students and interns in Exercise Physiology and Athletic Training on clinical and research ventures.

Please let me know if you have any questions or need additional information. We also have a memo from our Dean, Dr. Isaac Prilleltensky in support of the degree/curricular changes (See Appendix G). Finally, as per the request of Faculty Senate, we have spoken with Dr. Bachas (Dean of the School of Arts and Sciences), and have a letter of support from him (See Appendix H).

Please note that there will be no new hires required for the degree/curricular changes.

Sincerely,

Dr. Arlette Perry, Chair,

Department of Kinesiology and Sport Sciences

#### EXERCISE PHYSIOLOGY MAJOR

Proposal for Designated Degree Change

The Department of Kinesiology & Sport Sciences requests the designated degree awarded to Exercise Physiology Majors, be changed from a B.S. in Education to a B.S. in Exercise Physiology.

#### Background:

The Exercise Physiology Program at the University of Miami is an undergraduate program that currently offers a Bachelor of Science Degree in Education (B.S.Ed.) within the Department of Kinesiology and Sport Sciences in the School of Education and Human Development. This field of study consists of 45 credits (including KIN 212 and KIN 232).

Exercise physiology requires a strong background in the natural sciences with emphases on human physiology, biochemistry, anatomy and nutrition. A search on PubMed using only the keyword "exercise" and limiting the time frame to the first 8.5 months of this year yielded 19,037 journal articles examining the impact of exercise as an intervention for everything from childhood obesity to improved balance in the elderly. In fact, an individual looking at the current and recently completed studies at both the Medical and Coral Gables campuses cannot help but recognize the emphasis placed on exercise as a tool for prevention and rehabilitation. Currently we have collaborative initiatives with the Department of Endocrinology, Department of Diabetes and Metabolism; Department of Orthopaedics; Center on Aging; Kidney and Pancreas Transplantation; the Diabetes Research Institute; the Miami Project to Cure Paralysis; and, the Sylvester Comprehensive Cancer Center of the Miller School of Medicine; The Geriatric Research Education and Clinical Center of the Bruce C. Carter Veterans Administration Medical Center; and, the Department of Industrial Engineering and Herbert Wellness Center on the Coral Gables Campus. Reflective of the scientific nature of the program is the list of courses which our undergraduates are required to take include:

- Applied Nutrition
- Basic Human Physiology
- Bioenergetics and Muscle Physiology
- Gross Anatomy
- Systemic Exercise Physiology

- Scientific Principles of Exercise Prescription
- Neuromuscular and Cardiovascular Laboratories

#### Rationale for Change:

Students who successfully complete the degree have two basic career paths which they follow. The most prevalent is the pursuit of an advanced degree. The post-baccalaureate work is most often: (1) Medical School; (2) Graduate work in Exercise Physiology or a related discipline; or, (3) Physical Therapy. The second option is the pursuit of a healthcare/wellness-related position at a hospital, university, community or private wellness facility. In all of these cases, as both a declaration of their academic identity and as a tool for their competition for a position in either academics or the job market, the term Bachelor of Science in Education neither defines their

course of studies nor aids in their capacity to compete in the fields of physical science to which they aspire.

The following changes are being proposed to resemble the math and science requirements for similar programs at the University that offer a Bachelor's of Science degree.

#### Proposed changes will be reflective of other similar B.S. degree programs:

- 1. Change the General Education (GE) requirements to reflect new cognate requirements
- 2. In addition to the Math credits currently required as an area of proficiency:
  - a. Add 4 credits of calculus (MTH 161 or equivalent)
  - b. Add an additional 6 credits in Statistics/Research Methods including:
    - i. EPS 351 Introduction to Statistics
    - ii. KIN 415 Research Methods in Exercise Physiology

Current General Education Requirements	Proposed General Education Requirements (Based on new GE cognate requirements)
1. English Composition: 3-6 credits a. ENG105 and ENG106	English Composition: 3-6 credits     a. ENG105 and ENG106
2. Mathematics: 3-6 credits	2. Mathematics: 10 credits: a. MTH 161, EPS 351, and KIN 415
3. Arts & Humanities: 12 credits a. Fine Arts – 3 to 9 credits.	3. Arts and Humanities: 9 credits*
b. Humanities – 3 to 9 credits i. Literature	4. People and Society: 9 credits
ii. Philosophy/Religion	5. STEM: included in the major (see page 3)
<ul><li>4. People and Society: 9 credits</li><li>5. Natural World (Sciences): 18 credits including designated KIN courses</li></ul>	

<sup>\*</sup>If implementation of the cognates is delayed, the Arts and Humanities requirement will remain at 12 credits to be in-line with the current School of Education and Human Development's current General Education requirements.

The proposed changes are consistent with other similar B.S. programs. The comparative example provided here is the Bachelor of Science in Health Studies offered through the School of Nursing & Health Studies. The Bachelor of Science in Health Studies is very similar to the Exercise Physiology Program as both programs prepare students for advanced studies either in Medical School, Physical Therapy or another Health Related Field.

Health Studies B.S.	Proposed B.S. Exercise Physiology	
School of Nursing & Health Sciences	School of Education & Human Development	
Current Education Requirements	Educational Requirements	
(Based On 2012-2013 Bulletin)	(Regard on Now CE County)	
(Sweet on avia avia bunetin)	(Based on New GE Cognates)	
1. English Composition - 3-6 credits	English Composition 3-6 credits	
Except as indicated below, students must take English	Student must fulfill this requirement by satisfactorily	
105 and 106 (or its equivalent)	completing English 105 and English 106 or its equivalent.	
during the first year of enrollment	and English 100 of its equivalent.	
2. Mathematics - 4 credits	2. Mathematics – 4 credits	
a. MTH 161 or equivalent	a. MTH 161 or equivalent	
Statistics and Computer Programming - 6	Statistics	
credits	Part of Core Classes -6 credits	
a. HCS 202 or equivalent	a. EPS 351 Introduction to Statistics	
b. CSC or CIS	b. KIN 415 Research Methods in Exercise	
	Physiology	
Total = 10 credits		
	Total = 10 credits	
4. Arts and Humanities - 12 credits	4. Arts and Humanities – 9 credits	
5. People and Society - 6 credits	5. People and Society – 9 credits	
of the specific substitution and the specific s	or a sopre una society systemits	
6. Writing - 5 Courses	6. Writing – 5 Courses	
CORE	COURSES	
Pre-Physical Therapy Track	Exercise Physiology Pre-Med Track	
Biology 150/151 General Biology w/ Lab	Biology 150/151 General Biology w/ Lab	
Biology 160/161 Evolution and Biodiversity w/ Lab	Biology 160/161 Evolution and Diality (7.1)	
Biology 250 Genetics	Biology 160/161 Evolution and Biodiversity w/ Lab	
Biology 255 Cellular and Molecular Biology	Chemistry 111/113 Principles of Chemistry 1 w/ Lab	
Three credits of electives in biology or health	Chemistry 112/114 Principles of Chemistry 2 w/ Lab	
science above 100 level	Chemistry 201/205 Organic Chemistry 1 w/ Lab	
	Chemistry 202/206 Organic Chemistry 2 w/ Lab	
Health Science 212/213 Human Anatomy w/ Lab	Biochemistry for the Medical Sciences 401	
Health Science 215 Principles of Systemic	Physics 101/106 College Physics 1 w/ Lab	
Physiology	Physics 102/108 College Physics 2 w/ Lab	
Chemistry 104/106 Chemistry for Life Sciences II	Kinesiology 202 Nutrition for Health and	
w/ Lab or 201/205 Organic Chemistry 1 w/ Lab	Performance	
Physics - two semesters with lab	Kinesiology 212 Elements of Sport Psychology	
Psychology 203 Child and Adolescent Development	Kinesiology 221/222 Bioenergetics and Skeletal	
or 352 Abnormal Psychology	Muscle Physiology w/ Lab	
A minor in a discipline accepted by the School of	Kinesiology 232/233 Basic Human Physiology	
Nursing and Health Studies.	Kinesiology 233 Basic Anatomy Lab	
· · · · · · · · · · · · · · · · · · ·	Kinesiology 246 Gross Anatomy	
	Kinesiology 321/322 Introduction to Systemic	
	Exercise Physiology w/ Lab	
	Literate Litystology WI Lau	

Kinesiology 345 Kinesiology
Kinesiology 365/366 Principles of Exercise
Physiology w/ Assessment Lab
Kinesiology 421 Advanced Systemic Physiology
Kinesiology 457 Clinical Practicum in KIN
Kinesiology 466 Principles of Exercise Prescription:
Neuromuscular
Kinesiology 477 Advanced Nutrition for Sports and
Fitness

Note: for non-Pre-Med track (Chem 103/105 and
Chem 104/106) are required in lieu of Premed
Chemistry requirements.

## Peer Universities offering a BS in Exercise Physiology or Related Terminology

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School Name	Address	UG Degree
Arizona State University	Tempe, AZ 85287	BS: Exercise and Wellness
University of Minnesota - Twin Cities	100 Church St. SE, Minneapolis, MN 55455	BS: Kinesiology
The University of Texas at Austin	Austin, TX 78712	BS: Human Development and Family Sciences
University of Florida	355 Tigert Hall, Gainesville, FL 32611	BS: Applied Physiology & Kinesiology
Texas A & M University	College Station, TX 77843	BS: Applied Exercise Physiology.
Pennsylvania State University	201 Old Main, University Park, PA 16802	BS: Kinesiology
University of Illinois at Urbana-Champaign	601 E. John St., Champaign, IL 61820	BS: Kinesiology
Indiana University - Bloomington	107 South Indiana Ave., Bloomington, Indiana 47405	BS: Kinesiology
University of Michigan - Ann Arbor	Ann Arbor, MI 48109	BS: Movement Science
Rutgers, The State University of New Jersey - New Bruswick	83 Somerset St., New Brunswick, NJ 08901	BS: Exercise Science & Sport Studies
University of Maryland - College Park	College Park, MD 20742	BS: Kinesiology
University of Southern California	University Park, Los Angeles, CA 90089	BS: Human Development and Aging
University of Oklahoma	660 Parrington Oval, Norman, OK 73019	BS: Health & Exercise Science
George Washington University	2121 I Street, N.W., Washington, DC 20052	BS: Kinesiology
University of Virginia	Charlottesville, VA 22904	BSEd: Kinesiology
Baylor University	500 Speight Ave., Waco, Texas 76798	BSEd: Exercise Physiology
Tulane University of Louisiana	6823 Saint Charles Ave., New Orleans, LA 70118	BS: Exercise Science
Rice University	6100 S. Main St., Houston, TX 77005	BA: Kinesiology

Exercise Physiology

Exercise Science

Nutrition & Exercise Science

Additional Universities offering a BS in Exercise Physiology or Related Terminology Brigham Young University Provo, Utah Exercise Science University of California, Davis Davis, California Exercise Biology West Virginia University Morgantown, West Virginia Exercise Physiology University of Massachusetts. Amherst, Massachusetts Exercise Science Amherst University at Buffalo, The State Buffalo, New York Exercise Physiology University of New York Brigham Young University, Idaho Rexburg, Idaho Exercise Science, Exercise and Wellness, Physical Education East Carolina University Greenville, North Carolina Exercise Physiology Gettysburg College Gettysburg, Pennsylvania Exercise Physiology The College of Saint Scholastica Duluth, Minnesota Exercise Physiology Saint Ambrose University Davenport, IA Exercise Science United States Sports Academy Daphne, AL Exercise Science Lynchburg College Lynchburg, VA Exercise Physiology Ashland, OH Ashland University Exercise Science Baldwin-Wallace College Berea, OH Exercise Science Berry College Mount Berry, GA Exercise Science Eastern Michigan University Ypsilanti, MI Sports Medicine - Exercise Science Indiana Wesleyan University, Marion, IN **Exercise Science** Marion Gordon College, Wenham Wenham, MA Kinesiology Washington State University, Pulman, WA Nutrition and Exercise Pullman Physiology Teachers College at Columbia New York, NY Applied Exercise Physiology University Philadelphia, PA Temple University Exercise & Sports Science Bethany Lutheran College Mankato, MN Exercise Science California State University Chico, CA Exercise Physiology Northwest Christian University Eugene, OR Exercise Science Hanover College Hanover, IN Exercise Science Life University Marietta, GA Exercise Science West Liberty University West Liberty, WV Exercise Physiology University of North Carolina, Charlotte, NC Exercise Science Charlotte University of Southern Maine, Gorham, ME Exercise Physiology Portland Sacred Heart University, Fairfield Fairfield, CT Exercise Science

Loretto, PA

Kenmore, WA

Hillsdale, MI

Saint Francis University, Loretto

**Bastyr University** 

Hillsdale College

# UNIVERSITY OF MIAMI SCHOOL OF EDUCATION & HUMAN DEVELOPMENT



5202 University Drive Coral Gables, FL 33146

Phone: 305-284-3711 Fax: 305-284-3003 mdenarvaez@miami.edu

#### MEMORANDUM

DATE:

February 28, 2013

TO:

**Faculty Senate** 

FROM:

Dr. Arlette Perry, Chair

Department of Kinesiology and Sport Sciences

SUBJECT:

Degree Name Change - Department Approval

This is to inform you that on October 22, 2012 the Kinesiology and Sport Sciences
Faculty department unanimously approved the degree name change from Bachelor of
Science in Education to a Bachelor of Science degree in Athletic Training and a Bachelor
of Science degree in Exercise Physiology.

# UNIVERSITY OF MIAMI SCHOOL of EDUCATION & HUMAN DEVELOPMENT



5202 University Drive Coral Gables, FL 33146

Phone: 305-284-3711 Fax: 305-284-3003 mdenarvaez@miami.edu

February 14, 2012

Letter of Support

Dear Dr. Perry,

The Undergraduate Curriculum Committee (UCC) of the School of Education and Human Development met on November 5, 2012 to consider the following two proposals: (1) A change in the designated degree awarded to Athletic Training majors from a Bachelor of Science in Education (B.S.Ed.) to a Bachelor of Science in Athletic Training and (2) A change I the designated degree awarded to Exercise Physiology majors from a Bachelor of Science in Education (B.S.Ed.) to a Bachelor of Science in Exercise Physiology.

The committee was informed about changes in both major courses as well as in changes to the general education requirements. More specifically, the UCC was satisfied with the increase of general education requirements in the proficiency area of Mathematics which will align the proposed degrees with comparable degrees across campus. A thorough comparison among the various programs in other schools and colleges was included in the proposal. Accreditation and post-baccalaureate pursuits of students were major rationales for the proposals.

Information regarding the degree name changes for Athletic Training and Exercise Physiology majors was also obtained from the Undergraduate Student Council of the School of Education and Social Development and presented to the committee. For the past two years, student representatives have been voicing their support and discussing the need for a change of degree name to better reflect their undergraduate course of study and increase their competiveness in the graduate application process.

Based on the data provided, presentations, and after lengthy discussions, the Undergraduate Curriculum Committee unanimously approved the requests for a change of degree name for both the Athletic Training and Exercise Physiology majors.

Shawn A. Post, Ph.D.

Shama. Post

305-284-5703

Associate Dean



P.O. Box 248065 Coral Gables, FL 33124-2040 Phone: 305-284-3711 Fax: 305-284-3003 www.education.miami.edu

February 14, 2013

MEMORANDUM

TO:

University of Miami, Faculty Senate

FROM:

Walter G. Secada, Professor

Senior Associate Dean

RE:

Change of degree designation

The School of Education and Human Development held an electronic vote (from Friday, January 18 through Friday, January 25) on the following two motions:

Motion 1:

To change the designated degree awarded to Athletic Training Majors, from a Bachelor's of Science in Education (B.S. Ed) to a Bachelor's of Science (B.S) in Athletic Training.

Motion 2:

To Change the designated degree awarded to Exercise Physiology Majors, from a Bachelor's of Science in Education (B.S. Ed) to a Bachelor's of Science (B.S) in Exercise Physiology.

Twenty-one (21) out of forty-five (45) eligible faculty voted on each motion. Both motions passed by over 90% of the vote.

# UNIVERSITY OF MIAMI SCHOOL of NURSING & HEALTH STUDIES



Nilda (Nena) P. Peragallo, DrPH, RN, FAAN Dean and Professor

# <u>MEMORANDUM</u>

TO:

**FACULTY SENATE** 

FROM:

Nilda Peragallo Montano, DrPH, RN, FAAN, Dean

SCHOOL OF NURSING AND HEALTH STUDIES

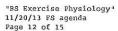
DATE:

January 16, 2013

This memo will serve as notification from the School of Nursing and Health Studies to the Faculty Senate that the SONHS has no issue with the change of the designated degree awarded to Athletic Training Majors from a Bachelor's of Science in Education (B.S. Ed) to a Bachelor's of Science (B.S.) in Athletic Training.

Respectfully submitted,

Dean





H. Peter Larsson
Associate Professor
Department of Physiology and Biophysics
University of Miami, Miller School of Medicine
1600 NW 10<sup>th</sup> Avenue
RMSB 5123
Miami, FL 33136

ph:305-243-1021 e-mail:PLarsson@med.miami.edu

December 3, 2012

Dear Dr Arlette Perry,

I have read your proposals for a degree change for 'Exercise Physiology Major' and 'Athletic Training Major'. The rationale for change and the proposed changes in education requirements seems reasonable.

I support your proposed changes for these Majors,

Sincerely,

H. Peter Larsson





Date:

February 8, 2013

To:

Robyn Hardeman

Secretary of the Faculty Senate

Subject:

Support for the change to a Bachelor of Science (BS) Degree in Athletic

Training & Exercise Physiology

As the Medical Director for the Athletic Training Education Program and a collaborator with the Exercise Physiology programs, I support the proposal to change the designated degree awarded to Athletic Training and Exercise Physiology majors, from a Bachelor's of Science in Education (B.S. Ed) to a Bachelor's of Science (B.S) in Athletic Training and (B.S) in Exercise Physiology, respectively.

The Athletic Training major must make this change in order to retain accreditation from the Commission on Accreditation of Athletic Training Education (CAATE). In addition, in my opinion, the current B.S. in Education degree may be a limiting factor for many of the Exercise Physiology students as they seek admissions into medical school and other graduate programs in science and allied health. Thus, a change to a B.S. degree in Exercise Physiology and in Athletic Training is essential for students in both majors.

Sincerely

Lee D. Kaplan, MD

Chief, Division of Sports Medicine

Associate Professor - Department of Orthopaedics & Biomedical Engineering

University of Miami Miller School of Medicine

Medical Director & Head Team Physician - University of Miami Athletics

Miami Marlins Medical Director & Team Physician



Department of Orthopaedics P.O. Box 016960 (D-27) Miami, FL 33101

# UNIVERSITY OF MIAMI SCHOOL OF EDUCATION & HUMAN DEVELOPMENT



Office of the Dean Isaac Prilleltensky, Ph.D. Dean and Professor Erwin and Barbara Mautner Chair in Community Well-Being

P.O. Box 248065 Coral Gables, FL 33124-2040 Phone: 305-284-3505 Fax: 305-284-3003 www.education.miami.edu

#### MEMORANDUM

February 21, 2013

TO

**Faculty Senate** 

FROM:

Isaac Prilleltensky, Dean and Professor

RE

Degree Changes in the Department of Kinesiology and Sport Sciences

I'm pleased to support the changes in degree sought by the department of Kinesiology and Sport Sciences in the School of Education and Human Development. We are requesting two designated degree changes from the Bachelor of Science degree in Education (B.S.Ed.) to a Bachelor of Science degree in Athletic Training and a Bachelor of Science degree in Exercise Physiology. The degree change is sought for the Athletic training program and for the Exercise Physiology program. Dr Perry details in her executive summary the rationale for both changes, which I support. The school voted on both motions, which passed with over 90% support.

# UNIVERSITY OF MIAMICOLLEGE of ARTS & SCIENCES



Office of the Dean

1252 Memorial Drive Ashe Building, Suite 227 Coral Gables, Florida 33146

Ph: 305-284-4117 www.as.miami.edu

October 4, 2013

Arlette Perry, Chair Kinesiology and Sport Sciences University of Miami School of Education and Human Development

Dear Dr. Perry:

Thank you for bringing to my attention the rationale for wanting a change in the degree title of your program. After meeting with you, I have no problem with the change in degree title from Bachelor of Science degree in Education to a Bachelor of Science degree in Exercise Physiology.

Sincerely,

Leonidas Bachas

Dean, College of Arts and Sciences