



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

facsen@miami.edu
web site: www.miami.edu/fs
P: 305-284-3721
F: 305-284-5515

MEMORANDUM

To: Donna E. Shalala, President

From: Richard L. Williamson
Chair, Faculty Senate

A handwritten signature in black ink, appearing to read 'Richard L. Williamson', written over a horizontal line.

Date: March 24, 2011

Subject: Faculty Senate Legislation #2010-10(B) – Reactivate the Mathematics, Science and
Technology Resource Teacher’s Master Degree Program in the School of Education

At its March 23, 2011 meeting, the Faculty Senate approved the proposal from the School of
Education to reactivate the Mathematics, Science and Technology Resource Teacher’s Master
Degree Program.

Background materials are enclosed for your reference.

This legislation is now forwarded to you for your action.

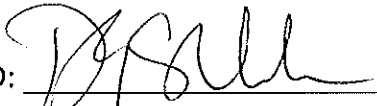
RW/rh

Enclosure (Proposal as presented to the Faculty Senate)

cc: Thomas LeBlanc, Executive Vice President and Provost
Isaac Prilleltensky, Dean, School of Education
Elizabeth Harry, Professor, Teaching and Learning
Shawn Post-Klauber, Associate Professor, Teaching and Learning

CAPSULE: Faculty Senate Legislation #2010-10(B) – Reactivate the Mathematics, Science and Technology Resource Teacher’s Master Degree Program in the School of Education

PRESIDENT’S RESPONSE

APPROVED:  DATE: 4/08/11
(President’s Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: DEAN PRILLELTENSKY

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____



TO: University of Miami Faculty Senate

FROM:

Walter G. Secada, Professor, Department of Teaching and Learning
Senior Associate Dean for Graduate Studies

RE: Reactivating the MST-RT track of the Department's STEM-education master's degree program

The purpose of this memo is to request Senate approval for the reactivation and re-energizing of the MST-RT track of the STEM¹-education master's degree program in the Department of Teaching and Learning.

In 1990, Professors Okhee Lee and Gilbert Cuevas (now emeritus) were funded by the United States Department of Education (\$414,000) to establish a Master's degree program for mathematics and science resource teachers. According to Professor Lee's recollection, the original program enrolled 22 participants and was reviewed and was approved by the Faculty Senate sometime in 1991. At that time it was called the Mathematics and Science Resource Teacher (MSRT) program.

Since the early 1990s, this resource-teacher program has recruited and graduated practicing teachers from the Miami-Dade County, Monroe County and Broward County Public Schools. *Since the fall of 2000*, the School of Education has graduated 64 students from this program. Of those 64, 51 were awarded an M.S.Ed. (Master's of Science in Education) and 13 were awarded an Ed.S. (Education Specialist). Furthermore, of these 64 graduates, 21 are African Americans, 23 are Latino/a, 17 are white (3 did not self-identify as to their ethnicity). Eight graduates are men; the balance are women.

Also since 2000, the original program was further differentiated into three tracks, each of which targeted specific markets:

- a track in K-6 mathematics, science and technology (MST-RT) targeting elementary-school teachers who are generalists and who are, typically, phobic of taking course work in mathematics and the natural sciences. This particular track was created in 2004 and accounts for 43 of the above 64 graduates.

- a track in 6-12 mathematics (MRT) targeting middle and secondary-school mathematics-certified teachers who require additional content course work. This particular track accounts for at least 15 of the above 64 graduates.
- a track for 6-12 science (SRT) targeting middle and secondary-school science-certified teachers who require additional content course work. This particular track accounts for up to 6 of the above 64 graduates.

In spite of the commercial success of the MST-RT program, which since its inception in 2005-06 graduated 43 students across two cohorts, the Department of Teaching and Learning was unable to continue the program due to the retirement of Professor Cuevas in 2007 and to Professor Cory Buxton's moving to the University of Georgia in 2008. Also, the Department experienced difficulties in recruiting a full cohort for the SRT (science) track. As a result of these issues, the Department voted to suspend admissions into the program until such a time as there was greater demand and we had additional faculty to help with the program's operation.

At that time, we were advised by the Graduate School and by Mary Sapp's office to deactivate all program codes in light of the fact that the re-activation of programs is a simple matter of informing various committees and offices of that decision. Hence, we closed out all the codes that reference the above program and its associated tracks.

In fall of 2010, Assistant Professor Jennifer Langer-Osuna joined the Department of Teaching and Learning as a mathematics educator. On October 27, 2010, the Department faculty met with the Miami-Dade County Public Schools Associate Superintendent Millie Fornel and Assistant Superintendent Maria deArmas. Both MDCPS representatives repeatedly stressed the importance of providing professional development in the teaching of mathematics and science to the district's elementary school teachers. Consultation with representatives from the Broward County Public Schools also supported our re-opening of this program in order to strengthen the ability of elementary school teachers to teach mathematics and science to their students. For these reasons – greater faculty support for this program and what seems like very strong market demand – the Department decided it was time to re-open the MST-RT program for a new cohort of students.

In light of this renewed demand and of our increased capacity to meet it, the Department of Teaching and Learning unanimously approved a proposal to reopen the MST-RT track at its meeting of November 24, 2010. The program will offer updated versions of the courses in the original track with one minor change: in lieu of a leadership course we will offer an introduction to special education. The requirements for admissions and the culminating project remain the same as in the earlier version of this program. In a word, no substantive changes are planned.

POTENTIAL COURSE ROTATION

TERM	MST-RT MASTER'S DEGREE
Fall 2011	TAL517 ⁱⁱ & TAL518 ⁱⁱⁱ (these courses have been offered in the past)
Spring 2012	TAL521 ^{iv} & TAL520 ^v (these courses have been offered in the past)
Summer 1, 2012	TAL642 ^{vi} (a 500-analog to this course has been offered in the past)
Summer 2, 2012	TAL503 ^{vii} (this course has been offered in the past; to be updated)

Fall 2012	TAL522 ^{viii} & TAL523 ^{ix} (these courses have been offered in the past)
Spring 2013	TAL603 ^x & TAL531 ^{xi} (these courses have been offered in the past)
TOTAL NUMBER OF CREDITS	30 (10 course, 3 credits each) plus culminating project

Our proposal was discussed by the Graduate Council at its January meeting and, since no objections were raised, subsequently approved by the Graduate School (see first attachment to this memo). The General Welfare Committee reviewed and approved this proposal at its meeting of March 9. What is more, on the same day, we received a memo from Professor Okhee Lee describing a meeting that she and Professor Randy Penfield had with key MDCPS personnel at which time the district, once again, expressed interest in a program like this one (see second attachment to this memo).

I hope that you will see fit to approve our proposal so that we can move forward with our plans for enhancing the ability of elementary-school teachers to better educate Southeast Florida's students in the mathematics, science and technology.

Please let me know if you require additional information.

ⁱ STEM is the term used by the National Science Foundation to refer to Science, Technology, Engineering and Mathematics.

ⁱⁱ *Curriculum and assessment, teaching and learning for Physical Sciences*

ⁱⁱⁱ *Curriculum and assessment, teaching and learning for Number, Operations, and Algebra*

^{iv} *Curriculum and assessment, teaching and learning for Life Sciences*

^v *Curriculum and assessment, teaching and learning for Measurement and Geometry*

^{vi} *Equity in mathematics and science education: Issues of social class, race, ethnicity, language, gender, and exceptionality*

^{vii} *Technology applications in education*

^{viii} *Curriculum and assessment, teaching and learning for Earth and Space Sciences*

^{ix} *Curriculum and assessment, teaching and learning for Data Analysis and Probability*

^x *Teacher in American Society*

^{xi} *Educating Exceptional Students*



Terri A. Scandura, Ph.D.
Dean of the Graduate School

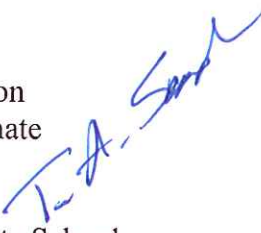
Graduate School
P.O. Box 248125
Coral Gables, FL 33124-3220

Phone: 305-284-4154
Fax: 305-284-5441
graduateschool@miami.edu

MEMORANDUM

DATE: January 21, 2011

TO: Richard Williamson
Chair, Faculty Senate

FROM: Terri A. Scandura 
Dean, The Graduate School

SUBJECT: Reactivating a Master Degree Program in the School of Education

The School of Education has submitted a request to reactivate the Mathematics, Science and Technology Resource Teacher's Master degree program. This was discussed at the meeting of the Graduate Council on Thursday, January 20, 2011, and none of the Graduate Council members expressed concerns regarding this change. The Graduate School (as approved by the Graduate Council) has no objection to the reactivation of this program degree.

cc: Office of Planning, Institutional Research and Assessment

Secada, Walter G

From: Lee-Salwen, Okhee
Sent: Wednesday, March 09, 2011 12:54 PM
To: Secada, Walter G
Cc: Penfield, Randall D
Subject: MST-RT program and P-SELL 5th grade teachers

Hi Walter,

Randy and I met with Maria de Armas and Beatriz Zarraluqui this morning, and they are interested in improving teachers' science knowledge through UM credits. I informed them of the MST-RT program. When we have the brochure and information ready, I would ask you to share the MST-RT program with M-DCPS administrators (Millie, Maria, and Beatriz). Also, I will share it with 130 fifth grade teachers who are currently in the P-SELL treatment group. Just about everyone likes the P-SELL program and they may like to be in the MST-RT program.

Okhee

Okhee Lee, Professor
University of Miami
1507 Levante Avenue, Room 220
Coral Gables, FL 33146
(305) 284-5604