

Antoinette Dunbar, Deputy Superintendent
Curriculum and Instruction

SUBJECT: REQUEST AUTHORIZATION TO ENTER INTO AN ARTICULATION AGREEMENT BETWEEN FLORIDA INTERNATIONAL UNIVERSITY (FIU) AND THE SCHOOL BOARD OF MIAMI-DADE COUNTY, FLORIDA, FOR THE SUPPORT OF THE CONTINUATION OF THE ONGOING PROGRAM *PARTNERSHIP IN ACADEMIC COMMUNITIES*

COMMITTEE: INSTRUCTIONAL EXCELLENCE AND COMMUNITY ENGAGEMENT

In 1994, Florida International University (FIU) and The School Board of Miami-Dade County, Florida, entered into an articulation agreement for the support of the *Partnership in Academic Communities* (PAC) Program with a subsequent renewal in 1998. The proposed articulation agreement requests that authorization shall be binding for five years pending annual review. The purpose of the PAC program is to increase technological literacy and achievement in mathematics and science in order to promote university admission following graduation from Miami-Dade County Public Schools (M-DCPS). This cooperative venture targets at-risk students who are enrolled at Cutler Ridge Middle School, Mays Middle School, Richmond Heights Middle School, and Miami Southridge Senior High School.

The attached *Program Overview and Data* submitted by Dr. Cengiz Alacaci, PAC Coordinator, FIU, provides data on student participation, high school graduation, and scholarships awarded as well as, PAC student demographic and FCAT performance data.

Students participate based on interest and selection criteria that include: GPA, low socio-economic status, high absenteeism, high mobility, lives in foster care, with guardian, or with a single parent. To remain eligible during middle school and senior high school years, the student must maintain a passing grade point average and must achieve consistent attendance in PAC courses. The high school student receives high school credit that is applied toward high school graduation requirements upon completion of each PAC course. Student progress is monitored by individual student assessment, teachers within the school, university professors, and counselors. Maximum enrollment is 120 students.

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Miami-Dade County Public Schools' students from grades seven through twelve attend classes at FIU during mornings of each school day and participate for the remainder of the school day at their home school. PAC courses include mathematics, science, and technology, with each class containing a required research component; school site courses include language arts, social studies, and electives. Students have the opportunity to study in a supportive environment at a university campus, utilizing the classrooms and laboratories associated with an institution of higher learning.

Florida International University provides ongoing instructional opportunities, faculty, graduate student support, and university scholarships for program graduates. M-DCPS provides certified teachers that are currently staff members of Miami Southridge Senior High School and daily transportation for all PAC students.

The approximate yearly cost to M-DCPS for transporting the students to and from FIU is \$50,000. The appropriation for this item is included in the General Fund of the 2006-2007 Adopted Budget, under Function 7800, Department of Transportation.

RECOMMENDED: That The School Board of Miami-Dade County, Florida, authorize the Superintendent to:

1. enter into an Articulation Agreement between Florida International University (FIU) and The School Board of Miami-Dade County, Florida, for the support of the continuation of the ongoing program *Partnership in Academic Communities*; and
2. make this agreement binding for five years pending annual review.

The appropriation for this item is included in the General Fund of the 2006-2007 Adopted Budget.

SB/BZ:kap

PARTNERSHIP IN ACADEMIC COMMUNITIES

Program Overview and Data

The Partnership in Academic Communities (PAC) program is a collaborative effort between Florida International University (FIU) and Miami-Dade County Public Schools (MDCPS). This unique program, housed on the FIU campus, is designed to increase achievement of underrepresented minority students in mathematics and science, and to make higher education accessible through daily exposure to university settings and culture. A significant feature of the program is the use of technology and research as tools for learning and investigating mathematics and science. Another very important feature of the program is the fact that FIU provides university scholarships to all students graduating from PAC that meet FIU admission criteria.

Each day participating high school students from Southridge Senior High School, and middle school students from Cutler Ridge, Mays and Richmond Heights Middle Schools arrive by bus at FIU's University Park Campus where they spend half the school day taking mathematics, science, technology, and research classes. When the PAC classes are over for the day, students return to their home schools for their other academic and elective classes.

The PAC program currently has approximately 100 students, in seventh through twelfth grades, being taught by teachers from Miami-Dade County Public Schools and FIU faculty. These specially trained teachers involve students in research-based, reform-oriented mathematics, science and technology curriculum. PAC teachers are historically highly qualified subject area specialists. Through the years, two PAC teachers have earned National Board Certification and two have completed the process and are awaiting their results. The majority of PAC faculty has received graduate degrees in their content area field or in education. The degrees include medicine, computer science, mathematics, chemistry, science education, and mathematics education. PAC teachers are committed to professional development and life-long learning. They actively participate in science and mathematics professional development opportunities such as AP workshops and regional mathematics and physics modeling workshops. In addition, the PAC teachers have served the Miami-Dade community as workshop developers and leaders for the Math and Science Professional Development project and New Teacher Orientation workshops.

The PAC program has been in operation for twelve years. The first students who joined the program in 1994, graduated in 2000. Over the past 12 years, the PAC program has been very successful. Since the inception of the FCAT graduation requirements no PAC students have failed to pass the math portion of the exam by the end of the eleventh grade year. In fact, the majority of PAC students pass the math portion of the FCAT in the tenth grade. In the past four years, only one student has failed the math portion of the FCAT in the tenth grade. Also, upon entering high school, PAC students enroll in more challenging courses. All students take honors math and science courses throughout high school and a large number take AP courses. During the 2006-2007 school year, 45% of PAC high school students are enrolled in at least one AP class and 25% are enrolled in two or more AP classes. In the last three years, 46% of PAC graduates were among the top 25 students in their graduating class. Beyond the academic accomplishments, the PAC program has created a lifestyle that includes community service, academic outreach, and a sense of belonging. Students and parents volunteer their time to participate in events such as the Heart Awareness Night, Math and Science Academic Night,

Saturday School, and the PAC Summer Academy. However, PAC's most remarkable accomplishment is the high school graduation rates. Over the past 7 years of graduating classes, PAC has achieved the following graduation statistics.

Of the students that start 9th grade with PAC:

94% graduate from high school

72% graduate from PAC

54% get accepted to a university and are awarded a scholarship

Of the students that make it to the 12th grade in PAC

98% graduate from high school

95% graduate from PAC

75% get accepted to a university and are awarded a scholarship

As a means of comparison, although there were 1402 students that entered the 9th grade at Southridge in Fall 2001, there were only 696 in the twelfth grade in 2004-2005 (49%), 619 of those graduated (89% of the senior class but only 44% of the original freshman class). Of the 696 seniors, 31.3% had plans to go to a 4-year college or university - no information is available on how many actually went.

It is also important to note that aside from meeting at-risk criteria, students recruited for PAC have stanines of 4's, 5's and 6's. In other words, upon entering PAC in the 7th grade, the students are ranked as having average ability. However, many of the students in the program would never have graduated from high school, and college would have been even less attainable, either academically or financially. These students are capable of succeeding in school, but for many reasons have been caught in a cycle of low academic achievement, no expectation of college admission, and little or no expectation of careers and good paying jobs. In fact, they often encounter situations that make success in school a struggle: single parent households with low incomes; responsibility for the care of younger siblings; the necessity of working to supplement the family income; ambivalence toward education at home and in their community. Many of them have experience with addicted family members, abusive relationships, or friends or family in prison. Some of the PAC children live with relatives because both parents are deceased. For most kids like this, the idea of attending a university is, at most, a flicker of a dream lost somewhere between middle school and dropping out of high school. The PAC program offers students an opportunity to achieve academic success, build self-esteem, and make college a reality.

The PAC program has another worthwhile dimension: it serves as a training ground for FIU preservice teachers (undergraduate and graduate students who are teachers-in-training) who work with and assist PAC teachers, FIU faculty and the PAC students, thereby gaining valuable real-world classroom experience. Through a series of grants including ones from the National Science Foundation, the National Aeronautics and Space Agency, and the Council of Great City Schools, selected FIU undergraduate education students have had the opportunity to participate in an academic and social support network for the middle and high school students in the PAC program. They work with students in classroom serving as tutors, teaching assistants, and mentors. Many are mathematics education majors, with some studying other education fields and the sciences. The PAC program allows FIU faculty and aspiring teachers to work with underserved students, increase minority teacher recruitment, and develop new education practices (especially in the areas of math, science, and technology) specifically designed for

urban settings. To date, over 120 FIU students have worked as PAC assistants, completed field observation hours within PAC classes, or done research with PAC teachers and students. There have been one dissertation and two thesis projects conducted in PAC classrooms by FIU graduate students. Currently, there are three PAC-associated dissertation projects either being completed or getting started.

PAC is not only a valuable asset for the College of Education, it is an asset for the University. Over the course of twelve years, faculty and students associated with the PAC project have published 20 articles, presented at national and international conferences over 50 times, and brought in approximately \$8 million in funding. There have been 7 faculty-directed grants from such agencies as NASA, NSF, Americorps, and the Florida Department of Education that have helped to directly support PAC operations: These funds total \$ 2 million. Additionally, there have been 9 faculty-directed grants from such agencies as NASA, NSF, the U.S. Department of Education and others that have been associated with PAC and the PAC community. In these instances, descriptions of the PAC project and its accomplishments have been successfully used as an existing infrastructure that gives grant proposals from FIU a unique edge over competing institutions. The funds granted to FIU in which PAC was not funded directly but had proposals with PAC listed as an asset total approximately \$6 million.

Submitted by:
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Partnership in Academic Communities (PAC)
Demographic Data
2002-2007

	<i>2002-03</i>		<i>2003-04</i>		<i>2004-05</i>	
	Number	%	Number	%	Number	%
Males	50	47	47	52	48	52
Females	57	53	44	48	45	48
Hispanic	64	60	59	65	63	68
Black	36	34	27	30	28	30
White	3	3	2	2	1	1
Other	4	4	3	3	1	1

	<i>2005-06</i>		<i>2006-07</i>	
	Number	%	Number	%
Males	43	49	40	44
Females	44	51	51	56
Hispanic	62	71	62	68
Black	23	26	27	30
White	1	1	1	1
Other	1	1	1	1

Partnership in Academic Communities (PAC)
Yearly Graduation Data and FIU Scholarships Awarded
 (* : projected)

	# of Graduates	FIU Admission
2000	11	9
2001	14	9
2002	12	7
2003	11	5
2004	10	9
2005	16	14
2006	13	11
2007*	16	12
2008*	15	11
2009*	11	8
2010*	8	6
2011*	19	14
2012*	22	17