

Volume 1, Spring 2010

Miami Dade College Tools for Success



SPRING 2010 NEWSLETTER

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About the Program

Tools for Success is a five-year project funded by the National Science Foundation to increase the number of under-represented students in the fields of science, technology, engineering and mathematics (STEM). The Project has three goals: (1) to attract and recruit underrepresented students into STEM majors at the Wolfson and Kendall Campuses, (2) to ensure student graduation in their selected A.A. STEM programs, and (3) to promote student transfer to four-year institutions as well as promote their success at these. The project uses proven techniques, such as online

learning communities, specialized advisement, technological tools, forums, field trips, mentoring, and other extra-curricular activities. Tools for Success bring together faculty, administrators, and scientist from the community to nurture underrepresented students who may otherwise not be able to succeed in STEM fields. The program is innovative in that it is not merely a scholarship program, but a program that truly aims to prepare students for success.

Student Accomplishments

Civil Engineering major, **Eva Sevilla** is one of 80 college students across the nation to be named to the prestigious Morris K. Udall 2010 Scholar's List. Udall scholars are selected based on their interest and commitment to careers in environmental sciences, health care or tribal public policy; leadership potential; and academic achievement. Eva is the first student in MDC's history to be named to the Udall Scholar's List. She will receive a \$5,000 academic scholarship and an

all-expense paid trip to Tucson to receive her award. This summer, Eva will also return to the Lawrence Berkeley National Laboratory (LBNL) to continue her research on the environmental impact of the different structures around Berkeley. Sponsored by the US Department of Energy, Eva turned down two other internship offers to return to LBNL.

Mechanical Engineering major, **Thomas Silva** was awarded a prestigious summer research fellowship through the National Institute of Standards and Technology. Thomas will receive a generous stipend and spend 11 weeks working elbow-to-elbow with the nation's top scientists.

Emmanuel Fernandez (biology major) will be spending six weeks during the summer at the El Verde Field Station through the University of Puerto Rico's Research Experiences for Undergraduates (REU) program. Emmanuel will develop a project under the guidance of a faculty mentor from UPR.

Mathematics major, **Jose Daniel Rodriguez** took home the first place trophy this March in the annual state-wide Math Olympics held in Jacksonville, FL. In addition



Eva Sevilla presents her research at the Undergraduate Research Expo Forum Fall 2009

to winning the individual competition, Jose's Wolfson Campus team also obtained first place in the group competition. Jose and his teammates competed against 24 other teams from various Florida state community colleges, colleges and universities. Their accomplishments are a true testament to the training and support provided by the mathematics department and specifically to professor Alvio Dominguez, the team's coach.

Chemistry major, **Launie Bruno**, earned an internship through the Hispanic Association of Colleges and

University's National Internship Program (HNIP). Launie will receive a \$4500 stipend and spend 10 weeks during with summer working with the Food and Drug Administration in New York.

Amanda Nelson and **Daniela Otero** (both biology majors) will be participating in the Summer Medical and Dental Education Program (SMDEP) this summer. SMDEP is a free (full tuition, housing, and meals) six-week summer academic enrichment program that offers freshman and sophomore college students intensive and personalized

medical and dental school preparation. Amanda and Daniela's programs will be held at Duke University and Yale University respectively.

Biology major, **Vanessa Vieites** was also accepted into SMDEP at Duke University, Yale University and the University of Virginia. Vanessa turned down all three offers and accepted a research internship through Boston University's Summer Undergraduate Research Fellowship program. Vanessa's research will focus on neurology.

2009-2010 Year in Review



Counter-clockwise: Professor Chris Migliaccio leads a field trip to the Fairchild Tropical Botanic Gardens in Coral Gables, FL. Students observe live organisms during the Diversity of Life field trip lead by Dr. Franklyn Te in Virginia Key Beach. Students getting acquainted during the Kendall Campus Orientation. Professor Chris Migliaccio leads a Swamp Tromp through the Florida Everglades. TFS Alum, Brian Garner, presents his research during the Undergraduate Research Expo Forum in Kendall.

Path to Success

Tools for Success has forged a "path to success" through the implementation of special projects proven to aid in the retention of STEM students. Over the years, the *Tools* faculty and administrative staff worked collaboratively to develop the curriculum for the four one-credit courses, to facilitate science forums and field trips that brought STEM students face-to-face with STEM professionals, and to create a two-tiered mentoring program that is deliberately intrusive in providing students with academic support.

The 2009-2010 academic year began with the program receiving recognition from *Excellencia* in Education, an organization that runs a national initiative to identify and promote institutional practices that excel Latino students in higher education. *Tools* was selected as one of five finalists out of 70 nominated projects across the nation to receive the Examples of *Excellencia* award. A profile was included in the 2009 edition of *What Works for Latino Students in Higher Education: Examples of Excellencia Compendium*.

This year *Tools* students engaged in service learning exercises, a few took the initiative to assist in the planning of various projects, and many participated in field trips to the Fairchild Tropical Botanic Gardens, Everglades National Park, the Coral Reef and Virginia Key Beach.

Just completing its third year, the program has stayed true to the original goals and objectives, yet instituted several

changes in the way business was conducted. While maintaining its signature “Harry Potter –Styled” mentor houses, mentors were required to hold monthly House Meetings with all of their mentees at once. This structure encouraged a great sense of camaraderie among mentors and mentees alike.

First of its Kind...



This academic year, *Tools* not only focused on all things STEM, but placed a large emphasis on the professional development of each student. The program offered Business Etiquette forums at each campus and thirty students were selected to participate in the first annual **Advanced Protocol Training: “Operating Rules for the 21st Century Workplace”**. The seminar was led by The Protocol Centre, a family owned business located in Coral Gables, Florida. The two-hour seminar covered several topics including self presentation, greetings and handshaking, formal and informal introductions, and event networking. Students had the opportunity to practice newly acquired skills with top MDC administrators. In attendance were various STEM departmental chairpersons from

Wolfson and Kendall, Wolfson Campus President, Dr. Mercedes Quiroga, and MDC Provost, Dr. Rolando Montoya. Students were very pleased at the support given by MDC administrators.



Left to right: Pauline Whittock of the Protocol Centre leads a discussion on self presentation. Ileana Cuba chats with Dr. Guillermina Damas, Chairperson for the Department of Natural Sciences, Health and Wellness. Eric Gutierrez, Reynaldo Cruz, & David Collante practice formal introductions. Amanda Nelson introduces herself to Dr. Richard White, Director of the School of Computer Science and Engineering Technologies and Dr. Michael Whitt, College-wide chair of Engineering. Students break for refreshments.

Special Recognition



Jose Daniel Rodriguez has been named to Bard College’s Distinguished Scientist Scholars Program. A distinction that comes with a full ride (tuition, fees, and housing) to the College’s Division of Science, Mathematics and Computing. Jose aspires to pursue a dual doctoral degree in Mathematics and Computer Science.



Cassandra Corrales has earned Miami Dade College’s 2009-2010 Honors Chemistry award, as determined by the Chemistry Faculty of the Wolfson Campus Department of Natural Sciences Health and Wellness. Cassandra will be completing her A.A. in Biology this semester and has the ambitious goal to pursue a career in medicine.

2010-2011 Transfer Admissions

Lisandra Alvarez – FIU
Ghazi Belaam – FIU
Cassandra Corrales – U of South FL, Purdue University, Oglethorpe, U of Texas
Virginia Escobar-Cheng – U of Miami, FIU
Reynaldo Cruz – FIU
Patrick Davies – U of Miami, Georgia Tech
Emmanuel Fernandez – U of Florida, Purdue University, Auburn University, U of California-Davis, Washington State, UGA, Colorado State, Iowa State, U of Minnesota
Maylin Fernandez – FIU
Josue Flanquin – FIU
Henry Gutierrez – Kettering University, U of Miami, FIU, FAU
Bess Georges – USF, UCF
Lee-Seng Lau – FIU
Paula Lopez-Trigo – FAMU, FIU

Ngin Mang – U of Tennessee, U of South Florida, FIU
Naphara Metivier – Barry University, FIU
Michael Meyer – FIU
Yhave Montalvo – FIU
Deborah Montfort – FIU
Amanda Nelson – U of Florida, FIU, U of Miami
Nicolas Norena – FIU
Daniel Otero – U of Central FL, Florida State U
Sasha Pacheco – Smith College, U of Florida, FIU, Northeastern U, Clark U, U of Iowa
Alexander Perez – FIU
Ariel Portilla – FIU
Richard Power – FIU
Miguel Ravelo – U of Miami, FIU
Esther Raymond – U of Miami, Barry University

Gabriela Rodriguez – U of North Carolina-Chapel Hill, U of South FL, U of Miami, U of South FL,
Jose Daniel Rodriguez – U of Florida, FIU, Bard College
Michael Sanchez – U of Florida, FIU
Eva Sevilla – U of Illinois Urbana-Champaign, U of Wisconsin, U of Texas
Thomas Silva – FIU
Emmanuel Stimphil – FIU
Joseph Succar – U of Florida
Loydeen Thomas – FIU
Brian Toston – Tulane University, U of Miami, U of Minnesota, FIU
Ashley Venagas – U of Miami, Barry U, FIU
Vanessa Vieites – Smith College, U of Mass-Amherst, U of Miami, Penn State, U of Maryland-College Park, U of Florida, U of Miami, FSU, UCF

STEM Success Transfer Scholarship Recipients

2009

Alina Balaguero
 Tyler Bonnen
 Jenelle Fernandez
 Alyssa Fundora
 Amberly Komatz
 Mario Lacayo
 Adrian Montero
 Moses Morjain
 Jose Portillo
 Rodrigo Prugue

2010

Ghazi Belaam
 Cassandra Corrales
 Virginia Escobar-Cheng
 Emmanuel Fernandez
 Maylin Fernandez
 Paula Lopez-Trigo
 Adriel Marcano
 Amanda Nelson
 Sasha Pacheco
 Vanessa Vieites



“As a proud student of the National Science Foundation’s Tools For Success Program, I must admit that the program has opened many windows of opportunity for me. I have diligently used these opportunities, along with the guidance of my professors and mentors, to strengthen my intellect and character, making my tenure at Miami Dade College extremely successful. Because of the encouragement and support I received through this program, I will be spending my summer at Duke University learning more about my future profession.”

– **Amanda Nelson**, *TFS Class of 2010*



“I was very fortunate to have joined the National Science Foundation’s *Tools for Success* program. This program offers a lot of valuable resources to students who are in the midst of making big decisions and may need advice and training from people who have been in the scientific realm.

Through forums and a series of four classes, we had the opportunity to learn how to exist in a professional environment. Before I joined the program, I really didn’t have many “tools” that are valuable and handy for me to be successful. Now, I feel very comfortable to network with others and I’m more precise in my lab work and homework in general. Through *Tools* I became very aware of my surroundings and I’m determined to get and do all requirements to be a valuable member of the scientific community.

-- **Ghazi Belaam**, *TFS Class of 2010*

Faculty Accomplishments



Tools mentor, **Dr. Miguel Alonso, Jr.**, received a grant from the National Science Foundation to advance student success among Hispanics and other groups underrepresented in computing fields. The grant, BPC-LSA: Scaling and Adapting Computing Alliance of Hispanic-Serving Institutions Initiatives, is a collaboration between MDC, California State University San Marco and the University of Texas Pan-American. Strategies include a new introductory course showcasing various topics in computer science, a peer-led team learning structure, faculty and peer mentoring, an affinity research group model, and outreach events to stimulate interest in computing careers among high school and undergraduate students.

Alumni Updates



Amberly Komatz and Beth Georges

Amberly Komatz (*TFS class of 2009*) attends the University of Florida and is completing her bachelor's degree in biology. Amberly aspires to practice medicine in the future and has been working alongside an oncologist (Dr. David Reisman) in the genetics research laboratories at Shand's Hospital. Her research is focused on lung cancer suppressor genes. Amberly is now an electee for the Alpha Epsilon Delta Premedical Honor Society. As a part of this organization, Amberly serves on the Students Advocating Informed Decisions and Student Art in Medicine committees.

Brian Garner (*TFS class of 2009*) attends Barry University and is a participant in the MARC U*STAR program. MARC U*STAR is funded by National Institutes of

Health to increase the number of biomedical and behavioral scientists at the Ph.D.

level. As a MARC trainee, Brian is gaining extensive research experience and is presenting his finding at various national conventions. Brian's research is focused on Creatine orotate and beta-alanine stability and kinetics. Brian attended the Annual Biomedical Research Conference for Minority Students in Phoenix AZ and the Quantitative Biology Workshop at the Massachusetts Institute of Technology in Cambridge MA. He is a member of the American Chemical Society and plans to obtain his Ph.D. at a prestigious institution.



Brian Garner in "research mode"

Alina Balaguero (*TFS class of 2009*) is currently studying Food Science at the University of Florida's College of Agriculture and Life Sciences. Alina works at the Aquatic Food Products lab at UF, which is run by Dr. Keith Schneider. The lab deals mainly with food pathogens as they pertain to produce. Alina won a scholarship from the International Society of Beverage Technologists (ISBT) this academic year and has made the Dean's List for the fall 2009 semester. She is currently working on getting a paper on Trichinosis published on UF's EDIS website.

Manuel Diaz (*TFS class of 2009*) is an aerospace engineering major at the Georgia Institute of Technology. He is currently working with the Center for Space Systems at GT and competing in the University Nanosat Program that is sponsored by the Air Force Research Labs. Manny's team satellite is called the R³ (Rapid Reconnaissance and Response) and its mission is to autonomously identify targets on the Earth by thermal and visible imaging using a micro bolometer and to characterize the effects of space radiation on the micro bolometer (with a radiation dosimeter). His job is to help out with the Navigation of the satellite (think GPS). Manny is actively involved in the Yellow Jacket Flying Club (YJFC), a nonprofit organization aimed at offering aviation enthusiasts an affordable medium to fly. Through this club, he is studying for his Pilot's License.



Jose Portillo at the UGA's Navarra Lab

Adrian Montero (*TFS class of 2009*) is completing his bachelor's degree in engineering at the University of Florida. He has been selected to participate in a research program at the University of Michigan during the summer of 2010. The two month program offers a \$4,000 stipend and covers the costs for housing, travel, and a partial meal plan. Adrian has recently joined UF's Salsa Club as well as the College's Fencing Team. As a participant in the Fencing Team Adrian has competed in a tournament in Tennessee and will compete in the Collegiate Nationals at Swarthmore College in Philadelphia in mid April.

Jose Portillo (*TFS class of 2009*) is studying Avian Biology at the University of Georgia. He is presently a member of the Poultry Science Club and actively participates in undergraduate research through UGA's College of Agricultural and Environmental Sciences. Jose's research analyzes the effects of acute corticosterone treatment on yolk corticosterone concentrations in leghorn chickens and is conducted at the state of the art Navarra Research Lab. Jose is also a member

of the Minorities in Agriculture, Natural Resources and Related Sciences Club at UGA.

2009-2010 Highlights



NOW ACCEPTING APPLICATIONS FOR FALL 2010- Visit www.toolsforsuccess.org



Tools for Success is funded by the National Science Foundation (NSF - DUE 0653098)
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