



# MACILE

MATHEMATICS • SCIENCE • ENGINEERING • LANGUAGE

Mathematics, Science, Engineering, and Language Newsletter

February –March 2015

## The MACILE Mission

Founded in 2007, MACILE is a non-profit education program dedicated to nurturing creativity, imagination, and learning in less-advantaged communities in the Dominican Republic. The program's particular focus is to encourage talented young people to develop a lifelong passion for learning and pursuit studies and careers in Science, Technology, Engineering, and Mathematics (STEM) with the aim of creating a self-sustaining pool of talented young engineers and scientists in the DR.

## MACILE Summer Academy

The MACILE Summer Academy has been leading the way in STEM focused education in the Dominican Republic since 2007. It is a five-week intensive program for talented, underprivileged youth in the Dominican Republic (grades 5th-12th). This past summer 81 students from 23 schools attended the academy. A total of 391 Dominican youth have participated since it began.

Partnering with the Technology and Engineering Education Department of Brigham Young University, and with the collaboration of Dominican teachers and volunteers from both the United States and the DR, MACILE provided an academically rigorous, stimulating, and fun environment in which these students strengthened core skill sets in

Father's quote: "MACILE is the best gift my family has received.

My older daughter changed and became an excellent student after attending the academy. She now

attends the university with a

scholarship she earned

thanks to MACILE. Her

MACILE Certificate is what

I want on my wall "

*Nicolas Rodríguez*



7th and 8th grade students demonstrate their alarm system

## Upcoming Events

- Preparatory classes for new pre-college scholarship award-ees begin March 20
- DR Advisor Committee meeting April 29/15, SD, DR.
- Construction MACILE Center to begin this summer.
- "Conozca MACILE" Fundraiser Banquet, June/15, Orem, Utah.



MACILE Summer Academy students develop math, science, and communications skills working collaboratively to create functioning robots

math, science, and language while immersing in hands-on activities designed to foster a greater understanding of engineering and technology as well as promote creativity and critical thinking in solving real-life problems. Afterwards, students showcased their creativity and problem-solving skills at the program's science and technology conference.

## Robotics

Robotics, as since 2010, was again one of the most exciting curriculum this summer. Participants learned principles of programming and team work while creating functioning robots. Working collaboratively, teams strived to find solutions to increasingly complex challenges. They were guided by teachers from BYU.

## The Water Project

Another exciting activity was the water project. Guided by Dr. SC. Vargas, upper level high school students designed and conducted experiments to assess the suitability of regional waters for consumption and other daily uses by Dominican families, ultimately bringing the need for change — and the importance of education — into sharper focus.



A student collect a water sample to test suitability

## Projects in Focus

We are working very hard to bring to fruition the MACILE Center the coming year:

- ♦ **Engineering and Science Preparatory and Discovery Academy (ESPADA)** — Establishing this year-round school will be instrumental in preparing students with an aptitude for STEM subjects to succeed at top national and international institutions of higher education, giving them a real chance to become leaders in their chosen fields.
- ♦ **MACILE Library**—In the region there are neither school libraries nor public town libraries. The MACILE library was established in 2012 to provide students and teachers support with essential educational resources, and to promote reading and learning. Although the library's space is very small and its holdings are currently modest, it is



Students working at the MACILE Library

already having a positive impact on the community. Our goal is to build it into an effective and invaluable comprehensive resource for teachers, students, and families throughout the region.

- ♦ **Teacher Development Institute** — This program will help develop effective STEM teachers in the community and improve instruction.



## MACILE Stats (Since 2007)

Scholarships awarded:

71 Pre-college

11 College

Teacher Fellowships:

21

Students Served:

391

Teachers Served:

197

School Involved:

36



MACILE scholarship recipients attend college:  
Luz Blaidy, Julio Cesar, and Leydi Celeste



Luz Blaidy Pinales Arias at INTEC

## MACILE Student Success



Leydi Celeste Cuevas at INTEC

### Leydi Celeste Cuevas Muñoz

First admitted to the MACILE Summer Academy in 2010, Leydi Celeste Cuevas Muñoz received the Distinguished Student Recognition award for three consecutive years, and attended high school on a MACILE scholarship, graduating with a 4.0 GPA. Having completed an internship with AES Dominicana, Leydi began her college education in February, majoring in mathematics at the Instituto Tecnológico de Santo Domingo on a COSOLA-MACILE scholarship.

Raised by a single mother who advocates for her children's education despite the family's financial struggles, Leydi and her three older siblings have all participated in the MACILE summer program and gone on to pursue higher education after graduating from high school.

"My family has always given me their support, for which I thank both God and them," says Leydi. "When I was admitted to MACILE, I was happy. I knew it would help motivate me to continue being a good student and to pursue my goals. This program has helped me a lot, both intellectually and economically."

### Luz Blaidy Pinales Arias

An accomplished MACILE Summer Academy student (2008) and past recipient of a MACILE scholarship, Luz Blaidy Pinales Arias attended the prestigious Dominican Republic high school Instituto Politécnico Loyola. In 2014, with the help of a COSOLA-MACILE scholarship, Luz enrolled in the Instituto Tecnológico de Santo Domingo (INTEC), where she is a chemical engineering major, and is working diligently toward her goal to transfer to Brigham Young University.

## Thank you to the Brigham Young University Team

They did it again! We are deeply grateful to all the BYU team members and friends for their generous contributions in making the MACILE Summer Academy 2014 program a huge success for the Dominican students who attended, as well as their teachers and families.



BYU team at the school Padre Zegrí in Nigua, DR, site of the MACILE Summer Academy since 2009. BYU has collaborated with MACILE since 2009

## What You Can Do to Help

We are dedicated to our goals, and you can help us achieve them. Here's how:

- ◆ Donate — Our programs are fully funded through private contributions.
- ◆ Volunteer — Contact us at [info@macile.org](mailto:info@macile.org) to find out more about the opportunities.
- ◆ Like and share the link to our MACILE Facebook page.
- ◆ Spread the word to increase awareness about MACILE.

## How we make a difference

MACILE strives to promote education and instill passion for learning STEM, providing promising underprivileged DR youth the opportunity to participate in our innovative, challenging, and stimulating academy; increasing access to much-needed financial assistance and educational resources; guiding and counseling students; and helping Dominican teachers improve their practices.

MACILE brings to talented young people in the Itabo-San Gregorio de Nigua (Ytabo) region hope and opportunities to expand their horizons.

## Contact Us

Give us a call for more information about MACILE and our work in the Dominican Republic

### MACILE

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## Support Our Scholarship Program—

Established in 2008, this merit-based program provides both pre-college and college-level scholarships to underprivileged students who show interest in math, science, and engineering. To date, MACILE has awarded 71 pre-college scholarships, and 11 college scholarships. Going forward, we hope to triple the number of awards in the next three years. Please help us accomplish this important goal.