

# STUDENT PROGRAM FOR INNOVATION IN SCIENCE AND ENGINEERING (SPISE)

**“Grooming the next generation of Caribbean science and engineering leaders”**

## WHAT IS SPISE?

SPISE is an intensive, 4-week (mid-July to mid-August) residential summer enrichment program offered by the Caribbean Science Foundation for gifted Caribbean high school students who are interested in studying and exploring careers in STEM-related disciplines. SPISE is modeled after the well-known MITES program at MIT (<http://oeop.mit.edu/programs/mites>). SPISE nurtures and supports the exceptional STEM talent in our youth, and encourages them to stay in the STEM disciplines beyond university and to consider technology-based entrepreneurship as a career option. The goal is to ensure that opportunities for future creation of technology-based jobs in the Region are not lost.

SPISE provides a risk-free learning environment in which students are trained to think critically and to develop analytical and logical problem solving approaches in several disciplines. Rote learning is discouraged, and instead the focus is on teaching students to understand and apply the fundamentals so as to achieve mastery.

SPISE students are immersed in rigorous university-level courses in calculus, physics, biochemistry, Caribbean unity, entrepreneurship and Mandarin, as well as hands-on projects in underwater robotics, renewable energy, electronics and computer programming.



## BENEFITS OF ATTENDING SPISE

- ◆ Build self-confidence in general, and specifically in the STEM disciplines
- ◆ Learn how to assimilate the fundamentals, think critically, and develop analytical and logical problem-solving approaches in various disciplines
- ◆ Participate in a hands-on engineering project as part of a team, and learn the value of teamwork
- ◆ Learn the essentials of developing a business plan, and how to pitch it to investors
- ◆ Improve study habits and time management skills
- ◆ Become better prepared for the pace and pressure of university life
- ◆ Learn about STEM-based career options and receive mentorship from experts in diverse STEM fields
- ◆ Become eligible for STEM internships in the Region, the U.S. and Canada
- ◆ Receive help with the U.S. university application process and financial aid strategies
- ◆ Learn how to write a CV that is an effective and compelling representation of you
- ◆ Make new friends, increase your social network across the Caribbean, and create networking opportunities that may be beneficial in the future

## APPLYING TO SPISE

Applicants must be at least 16 years of age but less than 18 years of age on July 1<sup>st</sup>, and must have completed CXC exams or equivalent in math and science subjects. Students from low-income households and girls are encouraged to apply. All applications are assessed by the SPISE Admissions Committee, composed of reviewers within the Region and Diaspora, who are from academia, industry and the business community. Selection is based not only on grades and CXC scores, but also on letters of recommendation and essays. Application forms are posted on the CSF website at: <http://caribbeanscience.org/projects/spise.php> in early January of each year. Student applications are due by March 31. SPISE is free for all participants thanks to generous donations from corporate, government and individual sponsors.



## STUDENT DEMOGRAPHICS

SPISE has served 85 students to date. Graduates from the 2012-2015 classes are enrolled at some of the world's top science and engineering universities, including: MIT, Harvard, Stanford, Columbia, SUNY, UNC, Temple, Howard, Univ. Rochester, FIT, Macalester, University College London, Univ. Edinburgh, Univ. Toronto, McMaster, Trent and UWI. Some have received full scholarships.