



## Student Program for Innovation in Science and Engineering (SPISE)

<http://caribbeanscience.org>

### **PARTNERS:**

- University of the West Indies, Cave Hill Campus, Barbados
- Caribbean Examinations Council (CXC)

## CSF: Who We Are

The Caribbean Science Foundation (CSF) is an independent, non-profit, non-governmental organization with its offices on the Barbados Campus of the University of the West Indies. Established by the Caribbean Diaspora for Science, Technology and Innovation (CADSTI) (<http://cadsti.org/>) in 2010, the CSF conducts STEM (Science, Technology, Engineering and Math) enrichment programs and workshops for students and teachers, provides guidance to entrepreneurs in the Region, and is planning to introduce a venture capital fund.

### **MISSION**

*To assist with the diversification of the economies of the Caribbean Region by harnessing science and technology for economic development, and to help raise the standard of living. Specifically, the CSF will:*

- 1) **Stimulate** technology-based entrepreneurship - by identifying and funding science and technology projects in new and existing enterprises that are relevant to Regional economic development needs.
- 2) **Accelerate** education reform that supports technology-based entrepreneurship - by promoting and funding programs that focus on:
  - ◆ The STEM disciplines.
  - ◆ Business and entrepreneurship education.
  - ◆ Foreign languages and communication skills in schools, universities and other educational venues.
- 3) **Provide** scientific and engineering advisory services to Caribbean governments - by working with CADSTI to leverage the expertise in the Diaspora.



## What is SPISE?

### **GROOMING THE FUTURE TECHNOLOGY LEADERS OF THE REGION**

SPISE is an intensive, 4-week residential summer enrichment program 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 and highly successful MITES program at the Massachusetts Institute of Technology ([web.mit.edu/mites](http://web.mit.edu/mites)).

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



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.

SPISE aims to nurture and support the exceptional STEM talent in our youth, to encourage them to stay in the STEM disciplines beyond university, and to consider technology entrepreneurship as a career option. The goal is to ensure that opportunities for future creation of technology-based jobs in the Region will not be lost.

The CSF firmly believes that the next "Google" can be started in the Caribbean by one of these students. One such company could supply high-paying jobs to a large percentage of the people in any of our countries.

## CAREER SEMINARS AND UNIVERSITY APPLICATIONS

SPISE students are exposed to career seminars delivered by luminaries in their respective fields. They are also guided and mentored by role models from the Diaspora on career paths and choices. Further, they receive assistance with their applications to universities for admission and financial aid, and to internships in the Region and abroad. An annual highlight is a Q&A session with an Admissions Officer from MIT.



## BENEFITS OF 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 making 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 various science and engineering 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
- ◆ Acquire new friends, increase your social network across the Caribbean, and create networking opportunities that may be beneficial in the future

## APPLICATION PROCESS

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://caribeanscience.org/projects/spise.php> in early January of each year. The due date is March 31<sup>st</sup>.

## STUDENT DEMOGRAPHICS

No. of SPISE Graduates by Territory 2012 -2016			
Anguilla	1	Martinique	2
Antigua/Barbuda	4	Montserrat	1
Barbados	16	Nevis	3
Belize	8	St. Kitts	1
Dominica	9	St. Lucia	11
Grenada	6	SVG	34
Guyana	10	Tobago	1
Jamaica	19	Trinidad	13

SPISE has served 109 students to date. Graduates from the 2012-2016 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, UCL, Univ. Edinburgh, Univ. Toronto, McMaster, Trent and UWI. Some have received full scholarships.

## FUNDING SPISE

SPISE is funded through generous donations from corporations, foundations, governments and individuals. The cost of sponsoring one student into the SPISE is US\$ 6,000 plus roundtrip airfare to Barbados. Each student is branded as a scholar of his/her sponsor. For more information about sponsoring a student or making a contribution, please contact Professor Cardinal Warde at [warde.csf@gmail.com](mailto:warde.csf@gmail.com) or 1-617-699-1281.

## Contact Information

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## DONATIONS TO CSF

- ◆ By cheque: made out to the Caribbean Science Foundation and mailed to the CSF address above.
- ◆ On-line at: <http://cadsti.org/donation/>
- ◆ By wire transfer:  
Bank Name: BANK OF NOVA SCOTIA  
SWIFT Code: NOSCBBBB  
Bank Key: BANK OF NOVA SCOTIA (40055)  
Bank Address: Broad Street, Bridgetown, Barbados  
Account Name: Caribbean Science Foundation  
Account Number: 9013083