

ITEN Project Team member **Conroy Hall** received an **ITEN Seed Grant** to establish a certificate course through **Shortwood Teacher College of Jamaica** focused on the use of virtual laboratories.

"Virtual Laboratories for Secondary Education"

August 16 - September 28



Given the emphasis of Caribbean curriculum and assessments (NSC and CSEC) on laboratory skills, **it is essential that students continue to build practical process skills associated with laboratory equipment.**

As a result, **virtual laboratories must address more than simple simulations that display phenomena.** Students must also be able to take part in experiments that reveal causality and fundamental, quantitative physical relationships.

Virtual laboratory experiences may include virtual data as well as real-world data through remote sensing (such as by acquiring imagery from a far-away satellite, or controlling a robot from a computer).

Beyond introducing teachers to free and paid virtual laboratory software, this course addresses core pedagogy, and will group teachers by disciplinary area with a mentor teacher to maximize relevance to the participants (bio, chem, physics):

- **Unit 1:** Introduction to Virtual Laboratories
- **Unit 2:** Utilizing Virtual Lab in an Active Learning Environment
- **Unit 3:** Planning Virtual Laboratories for Science at the NSC and CSEC Levels
- **Unit 4:** Preparing Virtual Laboratories for Science at the NSC and CSEC Levels

127

teachers are participating in the course.

Virtual Lab Resources

- Praxilab
- Yenka
- PhET
- LabINAPP
- Science Lab App
- Geogebra
- Beyond Lab