

School of Earth and Environmental Sciences Spring 2024 Colloquium Series

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Science Building C-207

Marc-Antoine Longpré, PhD

Associate Professor, School of Earth and Environmental Sciences,
Queens College, CUNY

A CURE* in SEES

**course-based undergraduate research experience*

In this talk, I will discuss the structure and initial results of the teaching approach — a course-based undergraduate research experience (CURE) — recently implemented in my GEOL 201 (Minerals, Igneous and Metamorphic Rocks) course. Via the “Canary Project”, students learn mineralogy and petrology through authentic research aiming to identify the magmatic processes that triggered historical volcanic eruptions in the Canary Islands. Students engage in research design by developing their own hypothesis, prepare their own sample, collect data on the scanning electron microscope, and then compile, interpret, and disseminate these data in a poster presentation and final report. Students participating in the first iteration of this course in Spring 2023 produced images of crystals of publishable quality. The quality of final deliverables and a post-pre survey of students indicate that desired learning outcomes — both general scientific skills and mineralogy-petrology focused skills — were achieved. A second iteration of the course will take place this semester (Spring 2024) and students will present their research in a poster symposium part of the SEES Colloquium on May 8th 2024.

