A Bridge to Calculus—and to a Better World
ABOUT BOB CASE

Bob Case was born and raised in Boston. At an early age, he developed a knack for mathematics which was fostered by incredible teachers at Hyde Park High School.

This led to Bob receiving a Ph.D. from the Belfer Graduate School of Science at Yeshiva University in New York City.
ABOUT

Bob Case Academy: Bridge to Calculus prepares high school students to take AP calculus and other math courses through an intensive six-week summer session on the Northeastern University campus. Now year-round help available through the Math Question Center and our signature Calculus Field Day.

FEATURED PROGRAMS:
• Bridge to Calculus (Summer Program)
• Calculus Field Day (April)
• Math Question Center (Evenings)
• Math and Coding (Optional Activity)
HOW WE MAKE A DIFFERENCE

Bridge to Calculus empowers students from Boston's underserved communities to take and achieve in advanced math classes.

Employers in our region, especially those with co-op positions, increasingly require coding skills and mathematical modeling as well as strong mathematical skills. Students participating in Bridge to Calculus will gain that competitive edge.

Strengthen the Boston Public School system

BPS teachers, NU community, motivated students

A bridge between high school and university

Support from CBO nearby - PieRSquared, Bottom Line

Team of mentors – BtC alum, NU undergrads, grads and community
“This program fits so well with the university’s mission in the city, the centrality of math as a civil rights instrument for city kids, and our long history.” ~Bob Case
Welcome to Ms. Famador’s Classroom!
ADDITIONAL INITIATIVES

Bridge to Calculus offers additional initiatives that empower students beyond mathematics.

**Question Center**
Students receive concierge attention as mentors and mentees engage in deep math concepts.

**College**
Students work with mentors to navigate the college application process.

**Friday Lectures**
Faculty and Special Guests provided expert lectures on various topics to stimulate students’ curiosity.

**Other Subjects**
Mentors assist in subjects outside of math, such as Physics and Chemistry.

**Math-Coding**
Students learn to code in Python. They work on projects in teams.

**Calc. Field Day**
Over 100 BPS students virtually come to NU in 2021 to compete in a day-long math event.
Two people are going to play a game of chess, and they need to randomly choose who will start. The choice must be completely fair and unbiased. They have a coin that can be tossed but they don’t know whether the coin is fair or biased. They want to generate a choice which is guaranteed to be completely fair, so (each player has a 50% chance of starting).

How can they do this using the one coin that is available?
A farmer is allowed to graze her cow in a neighbor's field, but the cow is only allowed to eat one half of the grass growing there. The field is a square of side 100 meters, and the grass grows evenly across the whole square. The farmer ties her cow to a post in one corner using a long rope, and then lets the cow graze freely in the field.

How long does the rope have to be so that the cow can only reach one half of the grass?
HEAR FROM OUR STUDENTS

Question Center
“To me the question center is not only a place where I get help with my math but also a place where I got the courage to take higher level math classes.”

High Expectations
“I strongly believe that most people rise to the expectations set for them when also provided with support, all of which can be found in BtC and QC.”

The world as we would like it to be...
“The Question Center is a community of learners where teachers and students learn from each other. It gives us the ability to form a world as we want it to be.”

A community of learners
“Question Center is a place where you can ask questions and get all the support you could possibly need. You get to meet a lot of new people and everyone is always more than willing to help. As a student, I'm constantly being challenged.”
STUDENT SPOTLIGHTS

Daniela Alarcon-Diaz
Hafcha Khanam
CONTACT US

Bob Case Academy: Bridge to Calculus
Raj Jesudason, NU contact Email Address:

r.jesudason@northeastern.edu

Website for BtC:

http://bridgetocalculus.sites.northeastern.edu/

BPS Teacher:
Ms. Noemi Famador:
nfamador@bostonpublicschools.org