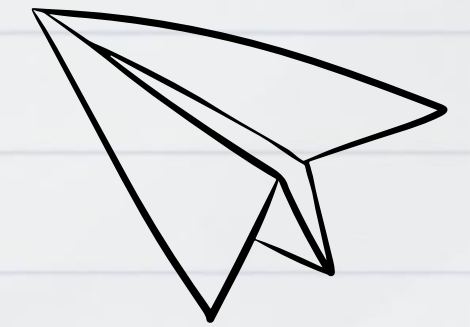
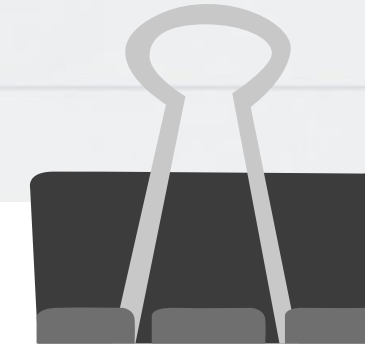


# **BOB CASE ACADEMY: BRIDGE TO CALCULUS**

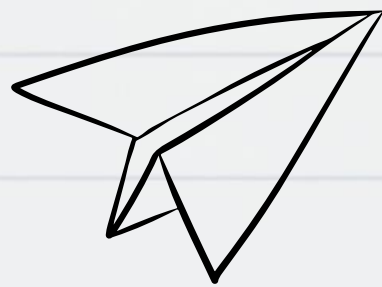
**June 24, 2024 - August 9, 2024**



# What is the BtC Summer Program?



An intensive seven-week program at Northeastern University for high school students to prepare and succeed in subsequent math courses like AP Calculus. Additional enrichment programs are included. Paid internships will be available for students attending the entire program.

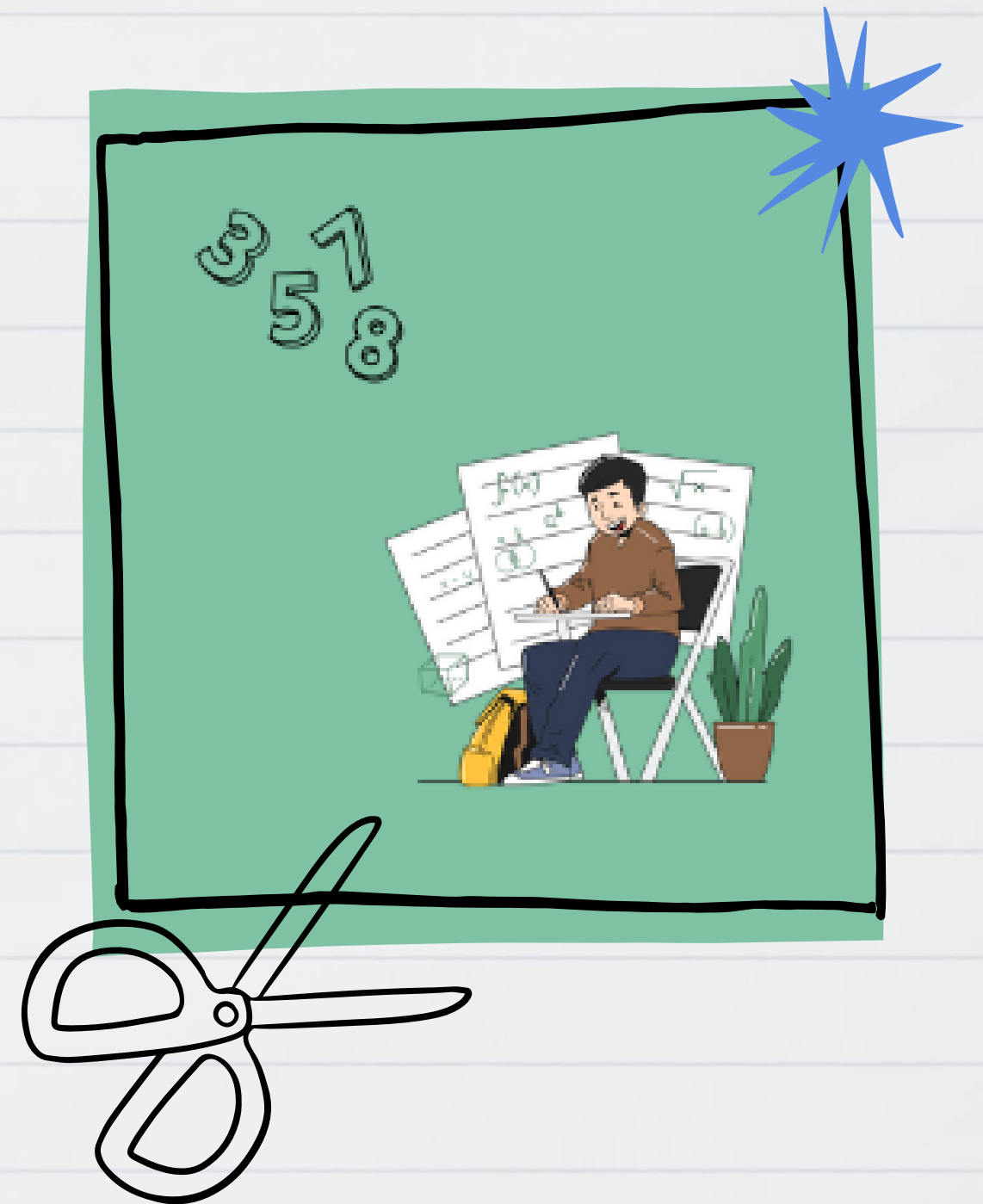


# Pre-Calculus/Calculus

7:30 AM – 9:30 AM

## Content Covered

- Functions, lines, and quadratics
- Exponential logarithmic, trigonometric, rational, and polynomial functions
- Inverse, transformation, and combination of functions and their graphs



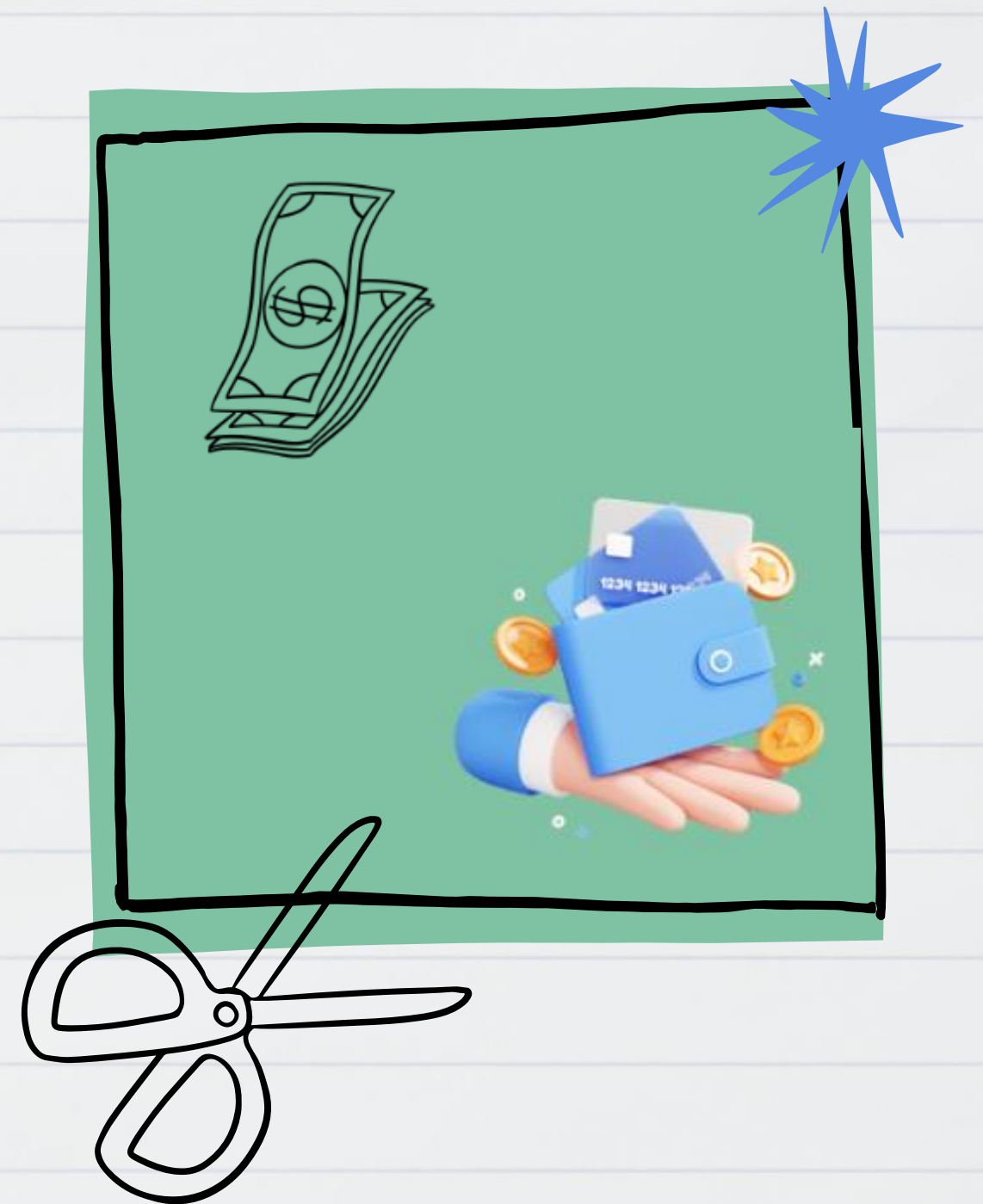
# Financial Literacy

9:30 AM – 10:30 AM

## Content Covered

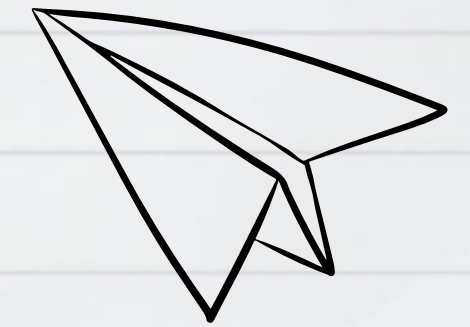
Students will learn basic budgeting skills, goal setting, and financial decision making!

- Banking and saving
- Credit and credit cards
- Student loans
- Overcoming wealth generation hump
- Interest rates and investing



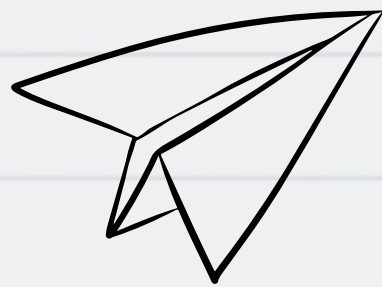


# Enrichment Programs



11:00 AM – 1:00 PM

Additional classes students will  
choose from to complement the  
math courses

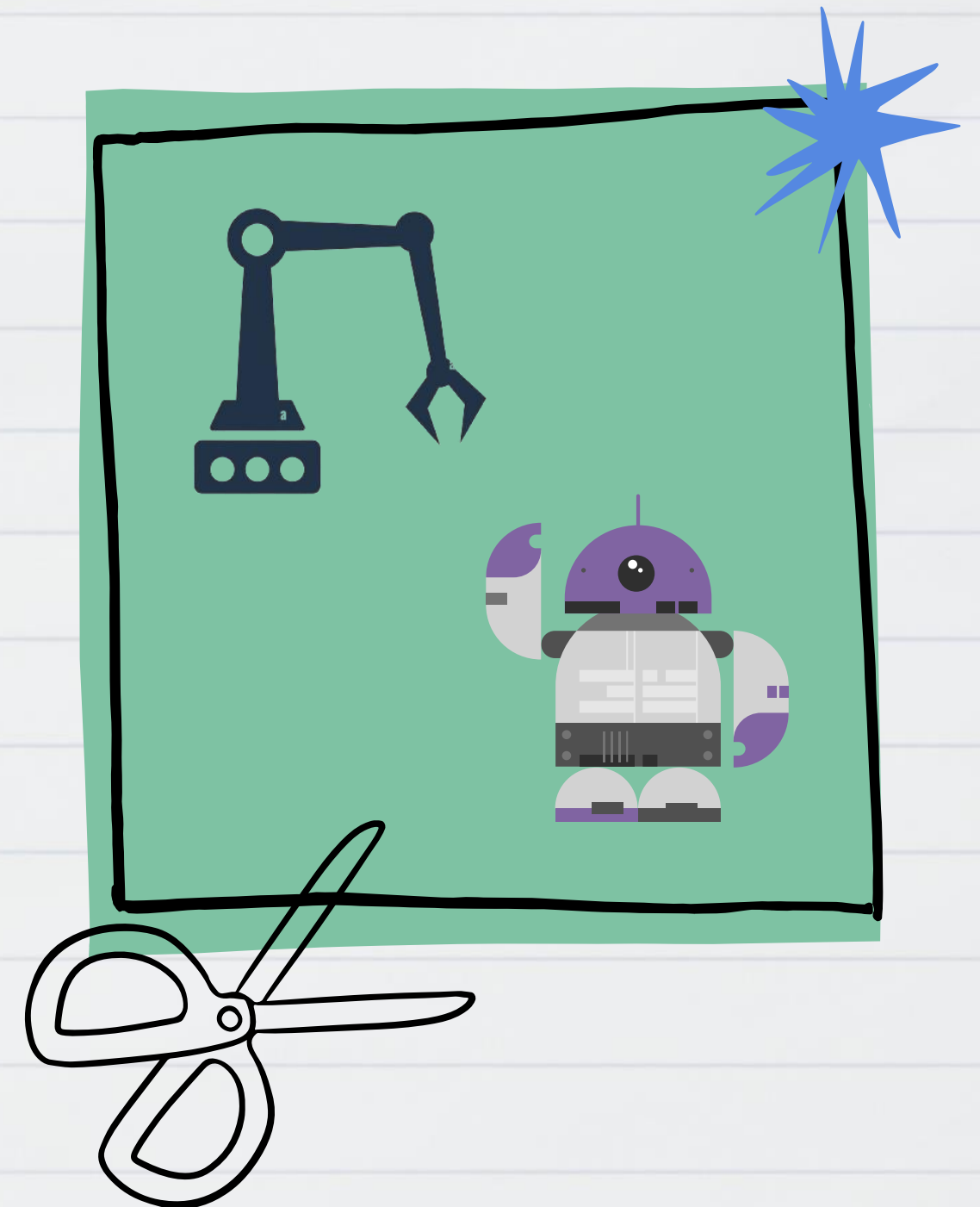


# Robotics

Fridays

## Content Covered

- Kinematic Sculptures



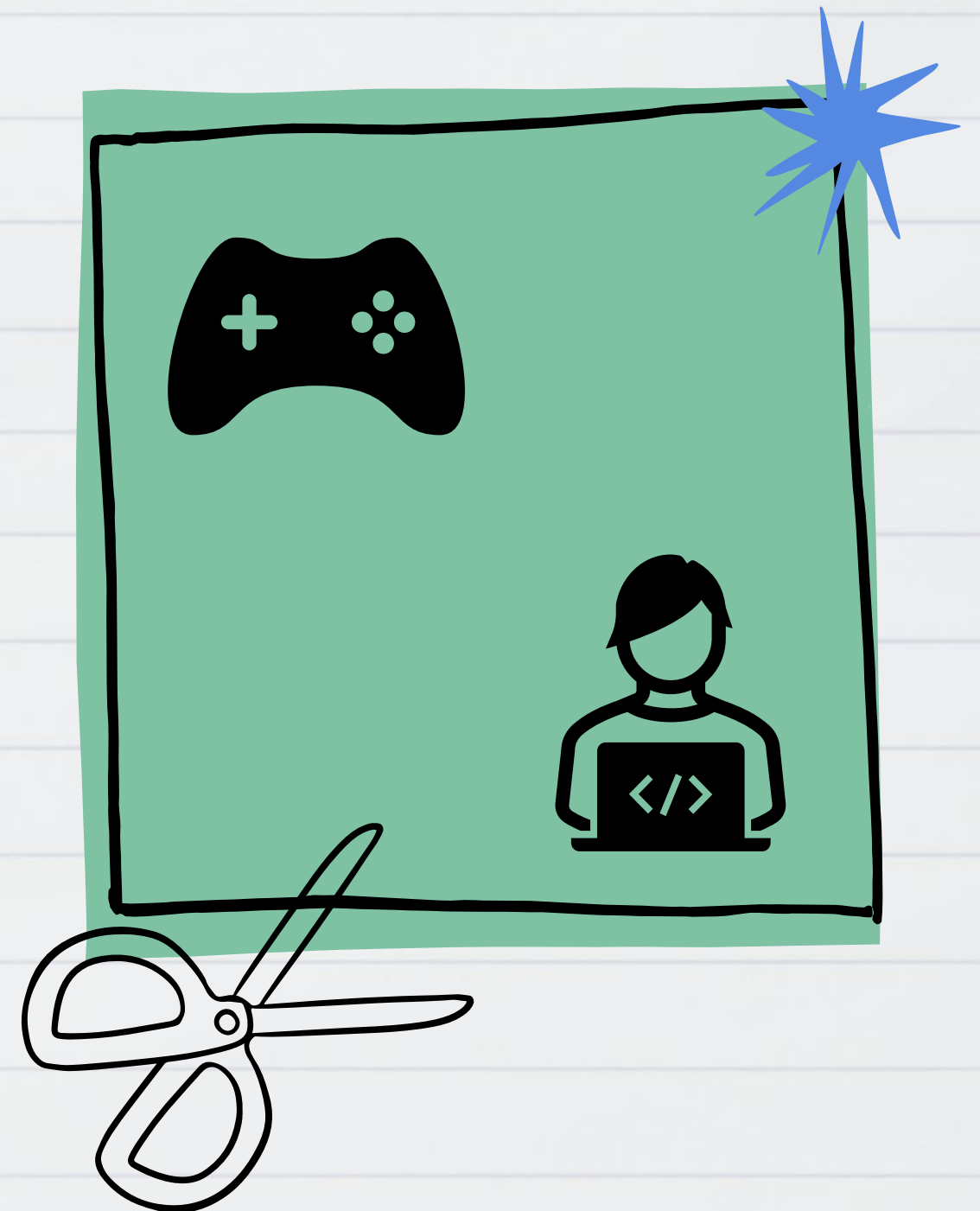
# Game Programming

## Content Covered

- Game Art
- Animations
- Sounds
- Level Design

### Course Project:

Build a game with your teammates utilizing the professional game engine Construct 3



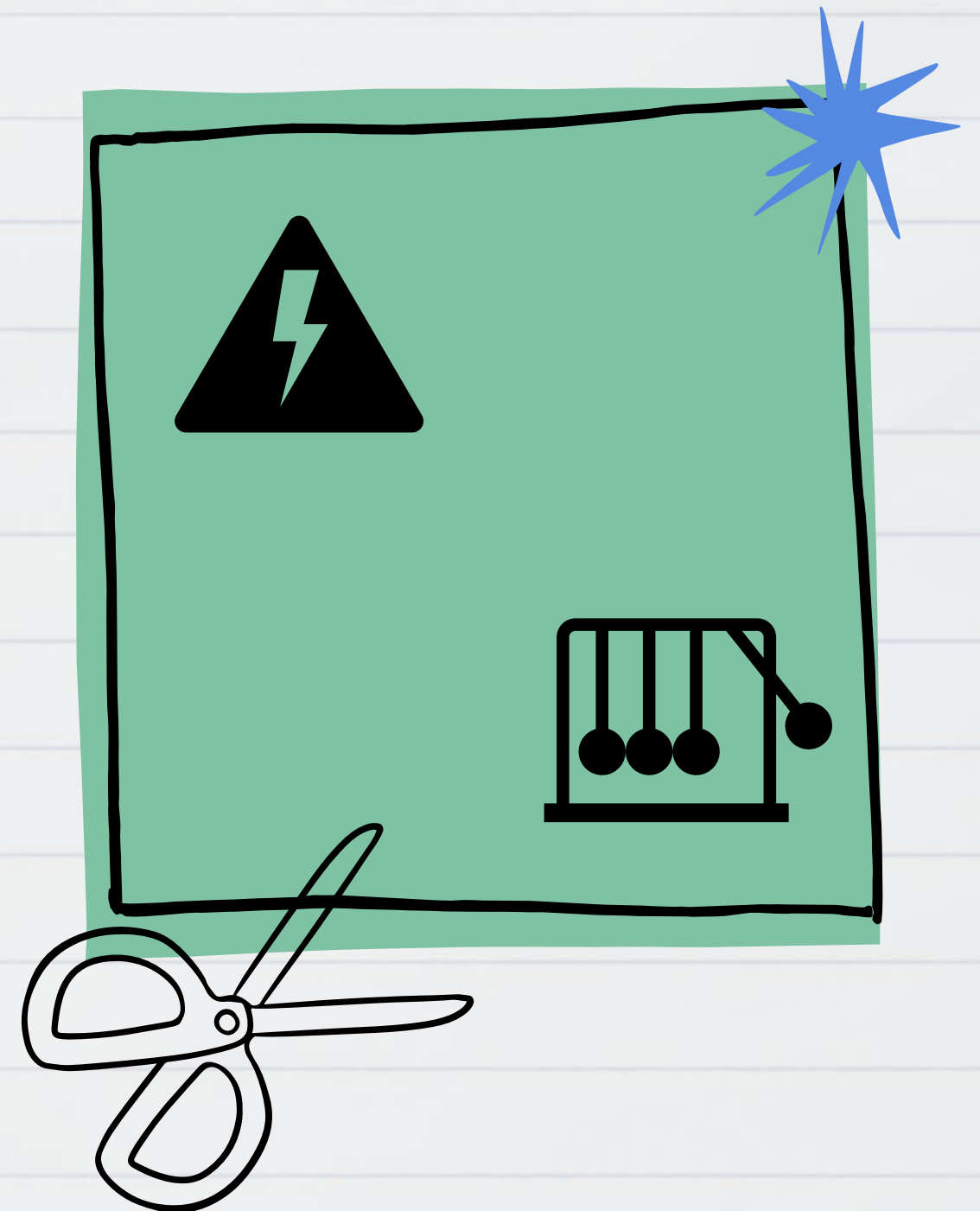
# Physics

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## Content Covered

- Force
- Electricity
- Magnetism
- Sound
- Music
- Generators

Lab work included and final project at the end of program!



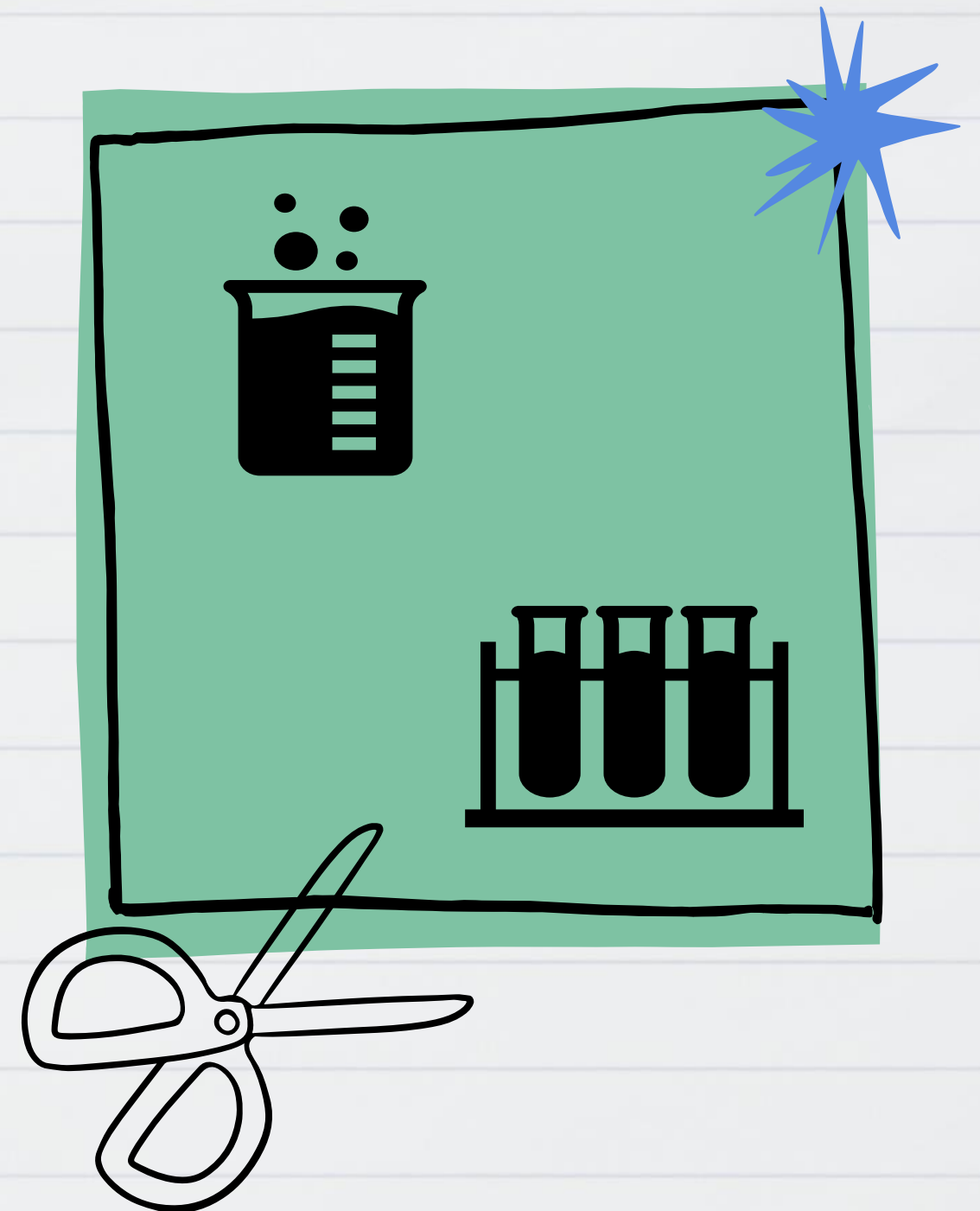


# Chemistry

## Content Covered

- Forensic Chemistry
- Drug Discovery
- Food Chemistry
- Colligative Properties In Food
- Environmental Chemistry
- Mock Autopsy

Lab work, mock autopsy, drug R&D workshops included and final project at the end of program!



# Biology

## Content Covered

- Cellular Biology
- Ecology and Traits

Hands on activities and final project at the end of program!



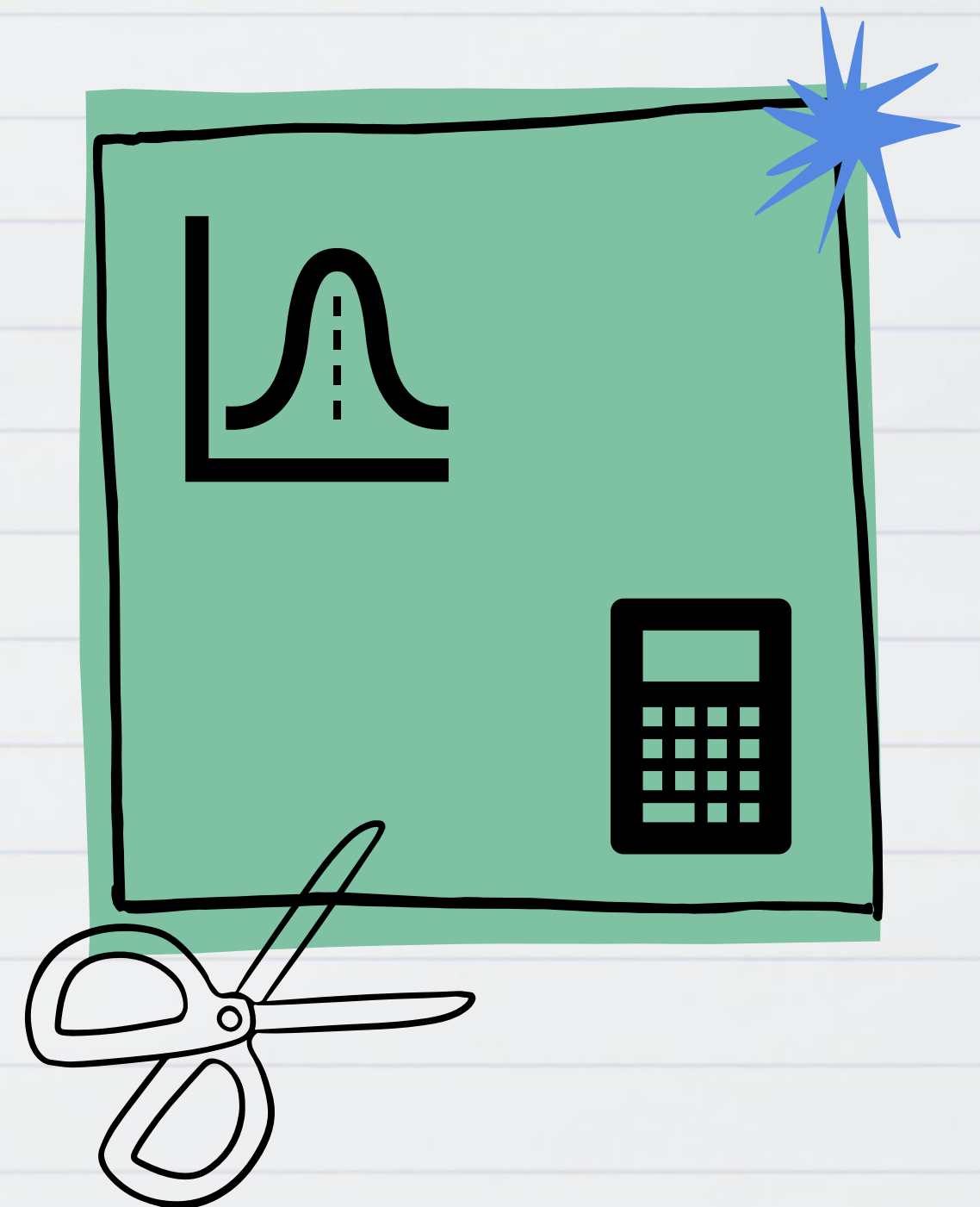
# Statistics

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## Content Covered

- Fundamental Statistics
- Data Science Concepts
- Statistics in daily life

Hands on learning, collaborative research,  
and final project at the end of program!

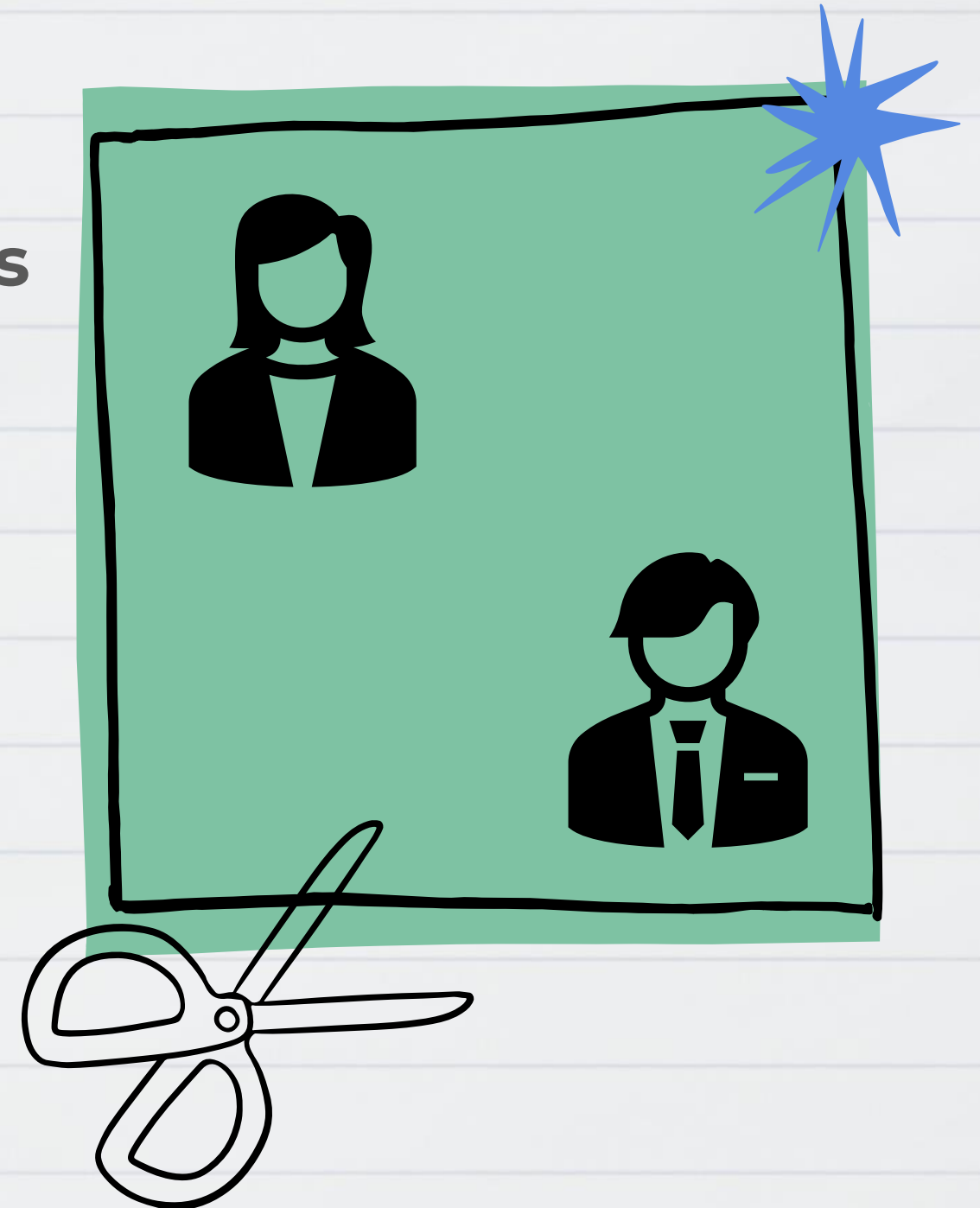


# Professional Development

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## Career exploration, readiness day lead by Northeastern's Career Design team

- Northeastern's Center for the Study of Sport in Society's workshop that promotes inclusion, personal validation, leadership skills, and community and economic empowerment.
- Workshops from the City of Boston's Office of Financial Empowerment (OFE) on Banking & Credit Building.
- Campus tours from Admissions Office.



# Day in the life of a BtC student

Student Group	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 AM
Grp 1 (Mn- Th)		Pre-Calculus		Project based Math	Lunch	Biology/Chem
Grp 2 (Mn- Th)		Pre-Calculus		Project based Math	Lunch	Physics
Grp 3 (Mn- Th)		Pre-Calculus		Project based Math	Lunch	Game Programming
Grp 4 (Mn- Th)		Pre-Calculus		Project based Math	Lunch	Statistics
All Grps (F)		Robotics			Lunch	Robotics



# Program Contacts

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**Bindu Veetel:**

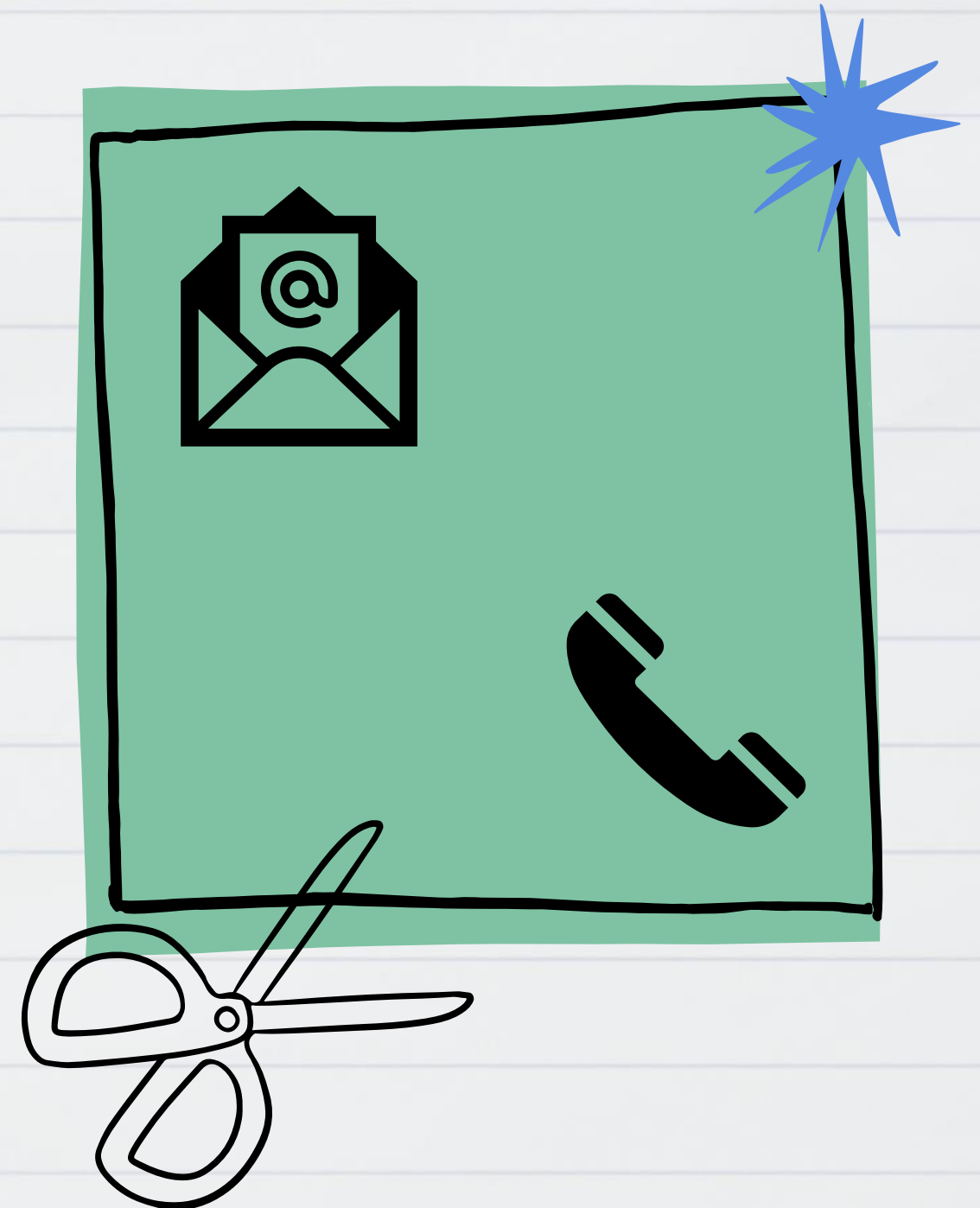
[b.veetel@northeastern.edu](mailto:b.veetel@northeastern.edu)

**Rajini Jesudason:**

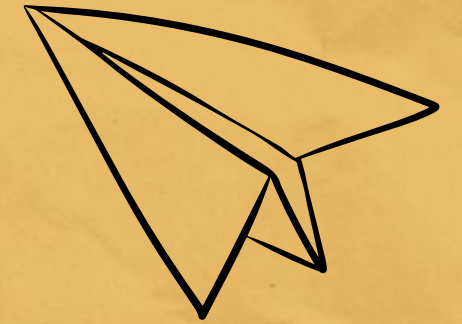
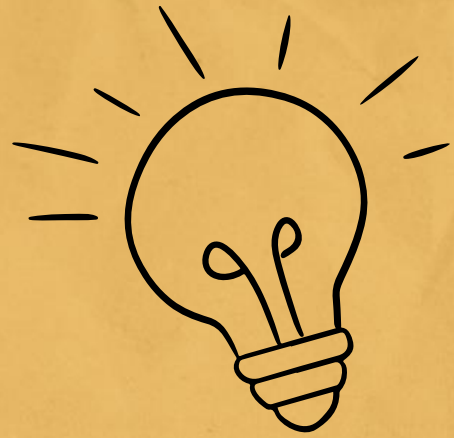
[r.jesudason@northeastern.edu](mailto:r.jesudason@northeastern.edu)

**BtC Email:**

[BtC@northeastern.edu](mailto:BtC@northeastern.edu)



# Registration



[https://neu.co1.qualtrics.com/jfe/form/SV\\_1LnPAGAQ6XHtbhA](https://neu.co1.qualtrics.com/jfe/form/SV_1LnPAGAQ6XHtbhA)

