SEPTEMBER 2024 - FALL

# HIGH SCHOOL MATHEMATICS COURSES

ROOTS TO ROUTES ACADEMY

KORINA THOMAS - REYNOLDS  $_{\rm iBA,\ BEd,\ MEd}$  CO-FOUNDER | DIRECTOR OF OPERATIONS

(289) 206-4331 • www.rootstoroutes.ca • info@rootstoroutes.ca LinkedIn | York's Top 30 Under 30 Recipient

# **OUR STORY**

### KORINA THOMAS-REYNOLDS CO-FOUNDER

Growing up in Scarborough, I was fortunate to be exposed to diverse cultures from around the world. Due to my family's limited financial resources, traveling was not something we could afford. However, the friendships I formed in Scarborough provided me with countless cultural experiences that made me feel like I had traveled extensively. These experiences inspired me to pursue a career as a French and Mathematics educator, recognizing the importance of firsthand exposure to French culture in order to teach effectively.

As a high school mathematics teacher, I noticed that some of my Black students were struggling academically compared to their peers. Although I provided them with individual support and words of encouragement to boost their confidence, they still remained disengaged.

I realized that the curriculum failed to reflect their lived experiences, creating a sense of exclusion that hindered their academic progress. I personally experienced this feeling of not belonging during my university years, constantly searching for someone who resembled me in large lecture halls to ease my anxiety.



Determined to bring about lasting change, I delved into the field of ethnomathematics, which explores the relationship between culture and mathematics. By connecting the course content to my students' lives, I witnessed a significant shift in their attitudes towards math, fostering a newfound appreciation for the subject.

I firmly believe that every child deserves an educational experience that recognizes, respects, and validates their unique identity. This belief motivated the establishment of Roots to Routes Academy, where we prioritize teaching students about their own culture, the world, and themselves across all subjects. We understand that a single course can alter the course of a child's life, empowering them to unlock their true potential and explore a limitless world of possibilities.

# ABOUT US

Roots to Routes Academy is an independent school who offers high school credit courses over the throughout the year. We offer a learning environment built *for* the Black community, *by* the Black community. Students will remain fully enrolled in their home school as they embark on an exciting journey with us! Our programs prioritize a global and Africentric curriculum tailored to increase student confidence. Students will access a course where they will flourish as they learn more about their cultural roots to discover their place in the world.

#### **OUR MISSION**

Our mission is to (re)ignitie Black students' interests in mathematics by incorporating their own rich cultural history into the learning process, empowering them to embrace the subject, achieve academic excellence, and unlock their limitless potential.

#### **OUR VISION**

Our vision is to expand Africentric education by offering culturally relevant academic courses and experiential learning opportunities that empower students to connect deeply with their cultural roots. Through sustainable solutions, we aim to build course programs that prepare students to become impactful changemakers in a global society.

# REQUIREMENTS & EXPECTATIONS

#### REQUIREMENTS

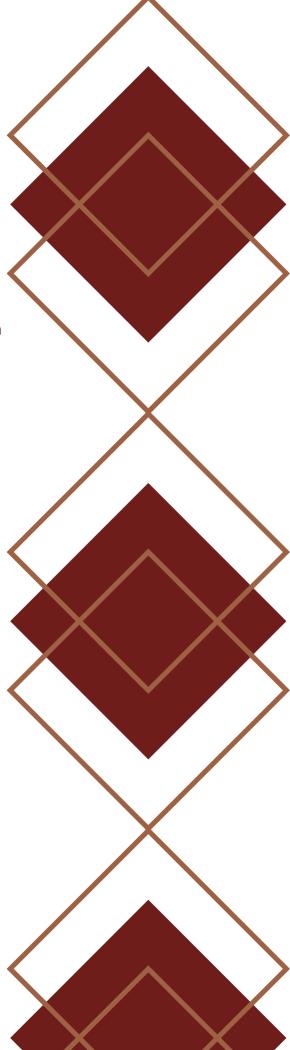
√ A copy of a Credit Counselling Summary for high school students

For more information regarding course prerequisites, click <a href="here">here</a>.

- √ A copy of a report card that shows their most recent math grade
- √ Access to a laptop and/or a Chromebook
- √ A copy of a Individual Education Plan (IEP) (if applicable)
- √ Reducing lates and absences to ensure that your child completes the 110 hours needed for the course

#### **EXPECTATIONS**

- √ Cameras are turned on at all times during virtual classes.
- √ Check Google Classroom regularly for announcements and updates.
- √ Monitor your child's grades and progress in the course.
- √ Ensure that all homework and assignments are completed on time.
- √ Set aside daily dedicated time for your child to focus on math homework and studies.
- √ Maintain open communication with the teacher regarding your child's progress.



### MATH IN ACTION

#### INTRODUCTION

MPM2D is an academic course that is a prerequisite for university level mathematics courses
in senior grade. Currently, the Ontario government
has not announced any plans to de-stream Grade
10. In our virtual classes, students will develop a
profound understanding of mathematical concepts
and how it relates to sports. Through technology
and interactive activities, students will learn how
to apply a mathematical equation to represent
their favourite sport! These connections will help
bring mathematics to life in a meaningful way.
This course is available to Grade 9 students
entering high school in Fall of 2024.

#### MATH IN ACTION

Our course is centred around the connecting principles of mathematics and sports. Students will be able to understand how quadratic equations relate to sports from basketball to soccer! Sports can provide students the ability to deepen their understanding of equations, connecting their passion with a subject that can open up their future to endless possibilities.

# UNITS OF STUDY

01

ANALYTIC GEOMETRY

02

**QUADRATIC RELATIONS** 

03

**TRIGONOMETRY** 

### **GRADE 10 MATH SCHEDULE**

#### IMPORTANT DATES

COURSE SCHEDULE	Mondays & Wednesdays 6:00 PM to 9:00 PM - ONLINE
START DATE	Monday, September 30, 2024
COURSE WITHDRAWL DATE	Wednesday, October 30, 2024
PARENT/TEACHER INTERVIEWS	Monday, November 25, 2024 & Wednesday, November 27, 2024
MID-TERM	Monday, December 2, 2024
WINTER BREAK	Monday, December 23, 2024 - Monday, January 6, 2025
COURSE CULMINATINGS/EXAMS	Monday, January 27, 2025
END DATE	Monday, February 3, 2024

#### MATH IN TRANSITION

#### INTRODUCTION

This course introduces the mathematical concept of the function by building upon students' familiarity with linear and quadratic relations. Students will explore the characteristics of both discrete and continuous functions, including trigonometric and exponential functions. They will learn to represent functions through numerical, algebraic, and graphical methods, solving problems that apply these functions in real-world contexts. Additionally, students will investigate inverse functions and gain proficiency in simplifying algebraic expressions. Throughout the course, students will engage in mathematical reasoning and articulate their thought processes while solving complex, multi-step problems.

#### MATH IN TRANSITION

Our course is centered around aiding students in building the foundation necessary to work towards their post-secondary goals. Students will have the opportunity to hone in on their learning skills, building confidence in their ability to continue in mathematics courses. Our program intentionally embeds Black culture, educators and content to ensure that students feel seen, heard, and represented.

# UNITS OF STUDY

01

CHARACTERISTICS OF FUNCTIONS

02

EXPONENTIAL FUNCTIONS

03

DISCRETE FUNCTIONS

04

TRIGONOMETRIC FUNCTIONS

### **GRADE 11 MATH SCHEDULE**

#### IMPORTANT DATES

COURSE SCHEDULE	Tuesdays & Thursdays 6:00 PM to 9:00 PM - ONLINE
START DATE	Tuesday, October 1, 2024
COURSE WITHDRAWL DATE	Thursday, October 31, 2024
PARENT/TEACHER INTERVIEWS	Tuesday, November 26, 2024 & Thursday, November 28, 2024
MID-TERM	Tuesday, December 3, 2024
WINTER BREAK	Monday, December 23, 2024 - Monday, January 6, 2025
COURSE CULMINATINGS/EXAMS	Thursday, January 23, 2025
END DATE	Thursday, January 30, 2025

#### PROGRAM ADVANTAGES

#### **DID YOU KNOW...?**

- In 2018, EQAO data for Ontario's largest school board revealed that 57% of TDSB students overall met the provincial standard for Grade 9 math, while only <u>18% of</u> <u>Black students achieved the same standard</u>.
- A study conducted in the United States revealed that Black students who have the opportunity to be taught by at least one Black teacher by the third grade exhibit a 13% higher likelihood of enrolling in university.
- According to school-board data, certain school boards in Ontario have less than 2% of their staff population comprised of Black teachers, indicating a significant shortage.

#### **OUR SOLUTIONS**





SMALL CLASSROOM SIZES



EDUCATORS



TEST PREPATION



AFRICENTRIC SOCIAL-EMOTIONAL LEARNING (SEL)

# ACCESS MATH FOR THE CULTURE

#### **CONTACT US**

(289) 206-4331 www.rootstoroutes.ca info@rootstoroutes.ca BSID #: 665779

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