Welcome! This letter is designed to help you understand the fourth mathematics course options to help you and your child choose the appropriate pathway of learning to support them on their post-secondary interests and pursuits. This letter will help you better understand the mathematics expectations for each high school 4th mathematics course and the supporting resources. For additional support and questions, please contact your child’s teacher or school counselor.

There are a variety of course options for students in high school. All courses are designed to prepare students for their post-secondary goals. More information about the course pathways is provided below. Parents should work with the school counselor and teachers to support students on their mathematics learning journey by helping students decide what their plans will be after high school and choose an appropriate course that best prepares them for those post-secondary plans.

**HIGH SCHOOL: 4TH MATHEMATICS COURSE OPTIONS**

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**Mathematical Modeling Pathway**
This pathway is designed for students to explore various topics beyond Advanced Algebra: Concepts and Connections that prepare them for various careers and post-secondary opportunities.

**Course Options:**
- Advanced Financial Algebra
- Advanced Mathematical Decision Making
- Mathematics of Industry and Government
- College Readiness Mathematics (Capstone Course)

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**Statistical Reasoning & Data Science Pathway**
This pathway is designed for students interested in careers and post-secondary opportunities that involve data and statistical literacy and reasoning.

**Course Options:**
- Statistical Reasoning
- AP Statistics
- Linear Algebra with Computer Science Applications

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**Calculus Pathway**
This pathway is designed for students interested in pursuing future careers in science, mathematics, engineering, medicine, architecture, and other majors requiring calculus.

**Course Options:**
- Precalculus
- Calculus, AP Calculus AB/BC
- Engineering Calculus
- Differential Equations
- Multivariable Calculus
- Advanced Finite Mathematics
- History of Mathematics

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Richard Woods, Georgia’s School Superintendent
An Equal Opportunity Employer
Getting to know your child’s post-secondary interests is important to help them identify an appropriate mathematics course. Communication with them throughout the year will support your child's individual growth while learning mathematics. The resource links below are provided to help your child while they are learning mathematics. If at any time you have additional questions or need to request additional support, please reach out to your child's teacher or school counselor.

### How will your child engage when learning mathematics?

<table>
<thead>
<tr>
<th>Positive Mathematical Mindsets</th>
<th>Mathematical Practices</th>
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<tr>
<td>Fostering positive mathematical mindsets is essential to support your child's mathematical growth and development.</td>
<td>Mathematical practices are the habits of mind for learners to demonstrate as they are engaging in exploring the mathematics content.</td>
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</table>

#### Mathematical Modeling

- Students will be expected to engage in the cycle for Mathematical Modeling in all learning tasks and activities to support student engagement at the highest level.

#### Statistical Reasoning

- Students will be expected to engage in the four-part statistical problem-solving process K-12 by asking statistical questions, collecting data, analyzing data, and interpreting the results.

Scan the QR code for more information and access to all links within this document.