

# Math Immersion

## STEM: Science, Technology, Engineering and Math.

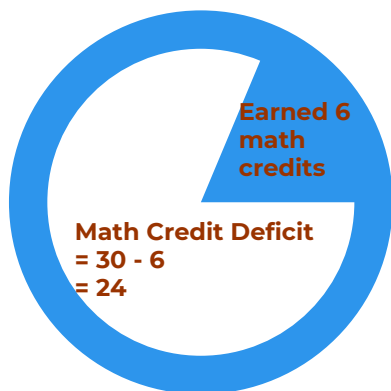
There is an acute need for STEM teachers in high-need regions – **More than half of public school** districts in the U.S., report difficulties recruiting and retaining certified, knowledgeable STEM teachers.

### Why STEM?

More than **900 STEM teachers** each year take on leadership responsibilities, and others pursue additional development through programs like **Math for America New York, or Urban Advantage's Middle School Science Initiative**. The Mathematics Immersion program exists to help us train more Math teachers by enabling candidates with a Math background, but not a major in Math train to teach Math.

## Pie = 30 Math Credits

In order to qualify as a Mathematics Immersion candidate, you must have earned a B or better in Calculus



Math Immersion candidates will need to fulfill the state requirement of 30 credit hours of Math Coursework. This Math coursework will occur concurrently with education coursework. Math Immersion candidates will be responsible for any cost associated with this additional coursework. Candidates in the Math Immersion program may work towards a 5-9 Math certificate upon admission to their university and a complete evaluation of their transcript. To determine how many credit hours you will need to make up, you can subtract the number of Math credits earned to date from 30. Your university will help you determine the best way to earn these deficit credits. The pie chart to the left calculates the number of credits a candidate would need to take assuming they are entering the program with 6 Math credits already.

## What is the certification and testing requirement to teach math?

Through our alternative certification programs, you will work in your **full-time school position** under a **Transitional B certificate issued by New York State**. Note that upon admission to your university, and a full evaluation of your transcript you may work towards a 5-9 or '7-12 teaching certificate at your university's discretion.



The Transitional B certificate is valid for up to three years, as long as you remain in good standing. To be eligible for this certification, you will need to take and pass two certification exams listed below:

1. Educating All Students (EAS) (201)
2. Mathematics Content Specialty Test (CST) (004)\*

\*Please do not start preparing unless admitted to the Alternative Certification Program

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## What will I be teaching my students?

The **Common Core State Standards** for mathematical practice outline the expertise that educators should be working to develop in students of all ages and academic abilities.

1. **Make sense of problems and persevere in solving them**
2. **Construct viable arguments and critique the reasoning of others**
3. **Reason abstractly and quantitatively**
4. **Model with mathematics**
5. **Attend to precision**
6. **Use appropriate tools strategically**
7. **Look for and make use of structure**
8. **Look for and express regularity in repeated reasoning**



## Check out the Common Core State Standards and more Resources:

[Mathematics Standards](#)

[Math Teacher Resources](#)

[NY State Next Generation Mathematics Learning Standards](#)

[Elementary Grades Core Curricula](#)

[Middle School Core Curricula](#)



## Math Teaching Journals & Professional Organizations

There are many professional organizations devoted specifically to mathematics teachers, with one of the best known being the **National Council of Teachers of Mathematics (NCTM)** (See: [www.nctm.org](http://www.nctm.org)). The NCTM runs conferences and publishes a wide range of journals as well as teachers' guides such as:

[Journal for Research in Math Education \(JRME\)](#)  
[Mathematics Teacher](#)  
[Mathematics Teaching in Middle School](#)  
[Mathematics Teacher Educator](#)



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