



COURSE TITLE – Using the MISIC Math Resources

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Licensure Renewal Credit: 1 credit

This course is offered by MISIC and is approved for licensure renewal credit only upon successful completion of all the components. The course is not approved as credit toward an endorsement or new teaching authority. Transcripts and credit will be issued by MISIC.

This course is presented in a self-paced format. Participants, whether individually or as learning team, are expected to make reasonable progress through the components. In order to accommodate the participant's work schedule and professional setting, no due dates are attached to the individual components with the exception of the final due date.

Dates: Online July 1, 2023-July 1, 2024

Course Description (Overview of Course)

The new math standards call for three major shifts in instruction. Teachers need to understand these shifts and be able find resources to help them implement the change. The new Standards for Math build on the best of existing standards and reflect the skills and knowledge students will need to succeed in college, career, and life. Understanding how the standards differ from previous standards—and the necessary shifts they call for—is essential to implementing the standards well. s in their classroom instruction. In this course, learners will gain an understanding of the shifts and dig into some resources and tools that will impact classroom instruction.

School Improvement Rationale (School data that indicates a need for this course).

The math standards must be taught by all schools. The new standards are significantly different from previous standards and require teachers to make some major shifts in instruction. Even though the new standards have been out for several years, there are still many teachers that need to gain a deeper understanding of the shifts and how to find quality resources to use in their classrooms.

Expected Outcomes: The learner will be able to...

Those who complete all components of the course will be able to:

- Understand the three shifts in math instruction and the implications for classroom instruction
- Understand the math standards and the implications for classroom instruction
- Utilize quality professional development modules that can be used to gain understanding of the shifts in math instruction
- Locate quality resources for math instruction and determine how they can be used to implement changes in classroom instruction
- Utilize Math Resource Guides to help align classroom lessons to the math standards

Note: Success criteria for each component are identified for each micro-credential component below.

| Micro-Credential Component* | Micro-Credential Description | Hours |
|--|---|---------|
| Overview of the Math Shifts | <p>The new standards for Math build on the best of existing standards and reflect the skills and knowledge students will need to succeed in college, career, and life.</p> <p>Understanding how the standards differ from previous standards—and the necessary shifts they call for—is essential to implementing the standards well. You will reflect on these math shifts within your lessons.</p> | 3 hours |
| <p>Success Criteria for this micro-credential:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reflect on your own practice around the Math Shifts <input type="checkbox"/> Provide at least three lesson plans that show what you will change, revise, and/or modify to better focus on the shifts | | |
| Micro-Credential Component* | Micro-Credential Description | Hours |
| Understanding the Math Standards | <p>How are the standards set up? How are they aligned K-12? These are just a couple of the questions that will be addressed in this micro-credential.</p> <p>The college- and career-ready standards anchor the standards document and define expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed. The K-12 grade specific standards define end-of-year expectations and a cumulative progression designed to enable students to meet college and career readiness expectations no later than the end of high school.</p> | 3 Hours |
| <p>Success Criteria for this micro-credential:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Understand and apply the Math Standards with your students and with your parents of your students <input type="checkbox"/> Understand the progressions of the math standards AND apply your learnings to your classroom instruction <input type="checkbox"/> Submit a lesson plan that demonstrates understanding of the math progressions <input type="checkbox"/> Thinking about your deeper exploration of the standards; identify some of your biggest learnings, share some of the opportunities for the students with the standards, and determine the challenges presented by the standards | | |

| Micro-Credential Component* | Micro-Credential Description | Hours |
|--|---|---------|
| Planning Professional Development for Math Teachers (Ready4U2Learn) | The MISIC team has researched and vetted professional development modules that are available to deepen your understanding of shifts in core instruction. In this component you will access the Ready4U2Learn Database on the MISIC Website and explore the site to deepen your understanding of the shifts in math instruction. After exploring at least four modules of your choice, you will choose one module to dig deeper to determine how the shifts will impact an upcoming math lesson or unit. | 3 hours |
| Success Criteria for this micro-credential: <ul style="list-style-type: none"> <input type="checkbox"/> Register for the MISIC Website <input type="checkbox"/> Locate and explore at least four professional development modules to deepen understanding of the shifts in math instruction <input type="checkbox"/> Demonstrate deeper understanding of the math shifts by reflecting on how the shifts will impact classroom instruction | | |
| Micro-Credential Component* | Micro-Credential Description | Hours |
| Exploring the Top MISIC Math Resources | The MISIC team has researched and vetted 1,000+ tools and resources for teachers and administrators. In this component you will access the Top 20 MISIC Math Resources and identify the resources you will use and why, possibly use and why, or not use all and why. | 3 hours |
| Success Criteria for this micro-credential: <ul style="list-style-type: none"> <input type="checkbox"/> Register for the MISIC Website <input type="checkbox"/> Identify the MISIC top math resources you will use and why, possibly use and why, or not use all and why. <input type="checkbox"/> Submit a lesson plan that utilizes at least one new resource to change your classroom instruction to better reflect the math shifts | | |

| Micro-Credential Component* | Micro-Credential Description | Hours |
|---|---|---------|
| Digging into the Math Standards Resource Guides | MISIC has developed Resource Guides for the K-8 Math standards. In this component you will examine the Math Resource Guide for your grade level and reflect on how you can use this Guide to plan your lessons aligned to the math standards. (If you are a high school teacher, use the 8 th grade guide to reflect upon a differentiated lesson/unit/intervention for struggling learners. | 3 hours |
| <p>Success Criteria for this micro-credential:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Understand the format and content in the Math Resource Guides <input type="checkbox"/> Utilize the Resource Guides to reflect on planning classroom lessons aligned with the Math Standards and submit three lesson plans that highlight alignment with the math standards | | |
| <p>Iowa Teaching Standards</p> <p>Check which number(s) of the Iowa Teaching Standards that connect to the work defined in this course:</p> <ul style="list-style-type: none"> ✓ Standard 1: Demonstrates ability to enhance academic performance and support for implementation of the school district's student achievement goals. ▫ Standard 2: Demonstrates competence in content knowledge appropriate to the teaching position ✓ Standard 3: Demonstrates competence in planning and preparing for instruction. ✓ Standard 4: Uses strategies to deliver instruction that meets the multiple learning needs of students. ▫ Standard 5: Uses a variety of methods to monitor student learning. ▫ Standard 6: Demonstrates competence in classroom management. ▫ Standard 7: Engages in professional growth ▫ Standard 8: Fulfills professional responsibilities established by the school district. | | |