

Course Offerings

Specialized Math Instruction



NEW professional development courses, focused on specialized math instruction, offered through Vermont Mathematics Initiative in partnership with Vermont State University (VTSU).

1 Beyond Procedures: Coherence Across Number Systems Using Additive Thinking and Mathematical Properties

This course explores math content to deepen the connection among numbers and operations, including whole numbers, fractions, decimals, and integers, using additive reasoning and mathematical properties. We will explore conceptual understanding and relationships to deepen understanding around the developmental trajectory of additive reasoning, and consider how this can be developed for learners through setting goals and planning for intervention. This will be done through evidence-based practices and learning about productive beliefs to develop equitable opportunities and understanding for learners.

This 3-credit course takes place July 13-17, 2026.

2 Beyond Procedures: Coherence Across Number Systems Using Multiplicative and Proportional Reasoning

This course explores math content to deepen the connection among numbers and operations, including whole numbers, fractions, decimals, and integers, using multiplicative and proportional thinking. We will explore conceptual understanding and relationships to deepen understanding around the developmental trajectory of multiplicative and proportional reasoning, and consider how this can be developed for learners through setting goals and planning for intervention. This will be done through evidence-based practices and learning about productive beliefs to develop equitable opportunities and understanding for learners.

This 3-credit course takes place July 20-24, 2026.

Both courses are designed for all educators, especially those providing tier 2 or 3 small-group targeted instruction on K-8 standards at all levels. This could include math interventionists/specialists, special educators/learning specialists, multilingual learner educators, instructional assistants/para-educators, and classroom teachers.

Each day of class will incorporate:

- Content – engage with an aspect(s) of content standards, synthesize and connect concepts from different domains, and number types
- Instruction – engage with evidence-based teaching practices (NCTM) and instructional routines/strategies, and reflect on how these practices can apply to instructional design
- Models and Strategies – use models flexibly to support understanding of the concept and use of multiple strategies, justify and explain models, analyze given models, and connect to conceptual understanding and strategies
- Intervention structures – discuss ideals for implementation, explore and discuss research on effective practices, and apply evidence to prepare differentiated instruction

An additional 3-credit course will also be offered during the school year, **Designing Coherent Mathematics Intervention for Diverse Learners**, as a follow-up to either or both courses.

Course Logistics

Tuition: \$2037; includes 3 credits through VTSU

Location: VTSU Williston Campus
Overnight accommodations will be available for those commuting more than one hour the week of July 13th, but may not be available during the week of July 20th at this time.

To register, scan the QR code, visit tinyurl.com/vmismummer, or contact Kathryn Delay with questions (kathryn@vmimathematics.com)

