Project INSPIRE Course Descriptions

Course 1: Nemeth Code within UEB Contexts and Strategies for Supporting the Pre-K-1st Grade Student in Building Math Skills

This course provides three lessons focused on Nemeth Code symbols, one lesson on formatting, and three lessons on instructional strategies and materials used with pre-kindergarten through first grade students. The course content includes Nemeth numbers, linear problems, spatial problems, and problems with multiple choice answers. In the course, participants are introduced to the Nemeth Code switch indicators and how to format basic worksheets that include centered headings and directions. The course also provides an overview of methods and materials used in math instruction with students at these grade levels as well as strategies for supporting the educational team and families.

View a list of the course objectives.

Course 2: An Introduction to Nemeth Code Symbols Used in Grades 2 to 5 and Strategies for Supporting Elementary Students in Building Math Skills

This first course for grades 2-5 provides three lessons focused on Nemeth Code symbols, one lesson on formatting, and three lessons on instructional strategies and materials used with second to fifth grade students. The course content includes signs of operation, signs of comparison, symbols for money, grouping symbols, and superscripts (exponents). In the course, participants build on their knowledge of Nemeth Code switch indicators and how to transcribe print and braille page numbers, numbered problems, and tables. The course also provides an overview of methods and materials used in math instruction with students at these grade levels as well as information on building a strong educational team and establishing effective digital workflows.

View a list of the course objectives.

Course 3: Grades 2-5: Nemeth Code Symbols for Fractions and Spatial Problems, Instructional Tools, Materials, and Technology

This second course for grades 2-5 provides three lessons focused on Nemeth Code symbols, one lesson on formatting, and three lessons on instructional strategies and materials used with second to fifth grade students. The course content includes fractions and mixed numbers, spatial arrangements, and long division. Participants learn how to format transcriber's notes and transcribe number lines. The course also provides an overview of methods and materials used in math instruction with students at these grade levels as well as strategies for developing students' abacus skills and supporting them in using screen readers when engaging in digital math learning.

View a list of the course objectives.

Course 4: Geometry and Tactile Graphics for Students in Grades 3 to 8

This course provides two lessons focused on Nemeth Code symbols. Participants are introduced to shapes and angles used in geometry in addition to the Five-Step Rule and exceptions to the rule. Topics of the other five lessons include: (1) instructional strategies and materials used with third to eighth grade students, (2) methods professionals can use to create tactile graphics, (3) methods students can use to create their own tactile graphics, (4) teaching students graphics literacy skills, and (5) supporting the development of students' thinking skills.

View a list of the course objectives.

Course 5: Nemeth Code Symbols Used in the Middle Grades and Strategies for Supporting Math Learning

This course provides two lessons focused on Nemeth Code symbols, one lesson on formatting, and four lessons on instructional strategies and materials used with middle school students. The course content includes variables, grouping symbols, negative numbers, absolute value, square roots, and subscripts. In the course, participants learn to transcribe number lines that include inequalities, ordered pairs on a coordinate plane, and x/y tables. The course also provides an overview of methods and materials used in math instruction with middle school students as well as ideas for connecting middle school literature to math concepts, and strategies for teaching math concepts to students with visual impairments and additional disabilities.

View a list of the course objectives.

Course 6: Nemeth Code Symbols Used in High School and Strategies for Supporting Math Learning

This course provides three lessons focused on Nemeth Code symbols, one lesson on formatting, and two lessons on instructional strategies and materials used with high school students. The course content includes the vertical bar, the infinity symbol, the hollow dot, angle brackets, enlarged grouping symbols, set theory notation, functions, radicals with an index, Greek letters, and the Five-Step Rule for Sigma notation. In the course participants learn how to keep math expressions together and when necessary, how to divide math expressions. The course also provides an overview of methods and materials used in math instruction with students in high school as well as strategies related to calculators, computers, and notetakers used in math learning.

View a list of the course objectives.

Course 7: Introduction to UEB Math/Science for Pre-Kindergarten – 1st Grade Students

This course provides three lessons focused on UEB Math/Science symbols, one lesson on formatting, and three lessons on instructional strategies and materials used with pre-kindergarten through first grade students. The course content includes UEB Math/Science numbers, linear problems, spatial problems, and problems with multiple choice answers. In the

course, participants are introduced to how to format basic worksheets that include centered headings and directions. The course also provides an overview of methods and materials used in math instruction with students at these grade levels as well as strategies for supporting the educational team and families.

View a list of the course objectives.