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

Lesson 1: Basic Shapes and Angles Used in Geometry

1.1   Participants will be able to read and write the names of basic shapes in Nemeth Code within UEB contexts

1.2   Participants will be able to read and write problems containing geometric math expressions

1.3   Participants will be able to read and write problems containing shapes to represent omitted material

Lesson 2: The Five-Step Rule and Exceptions

2.1   Participants will be able to read and write modified expressions created using:

- The Five-Step rule
- Two important exceptions to the Five=Step Rule

2.2   Participants will be able to read and write the Nemeth Code symbols for parallel, perpendicular, not parallel, and not perpendicular

2.1   Participants will be able to read and write sentences containing modified expressions

Lesson 3: Materials and Strategies for Geometry Instruction

3.1   Participants will be able to identify materials that can be used when teaching geometry and tactile graphics to students in grades 3-8

3.2   Participants will be able to recognize ways they can support math instruction for students in grades 3-8 who are learning geometry

Lesson 4: Creating Quick and Efficient Tactile Graphics

4.1   Participants will be able to identify methods, tools, and materials that can be used to create tactile graphics

4.2   Participants will be able to understand the importance of the BANA Guidelines when creating tactile graphics

4.3   Participants will be able to identify the steps needed to plan and create a tactile graphic

Lesson 5: Teaching Your Student to Create Their Own Drawings

5.1   Participants will be able to state why it is important for a student to be able to create their own drawings

5.2 Participants will be able to name a variety of tools a student can use to create their own drawings

5.3 Participants will be able to identify multiple ways a student can create their own drawings

Lesson 6: Systematically Teaching Graphics Literacy Skills to Students
6.1 Participants will be able to become familiar with the AnimalWatch Vi: Building Graphics Literacy tool

6.2 Participants will be able to identify graphics literacy skills students need to develop in order to be efficient in locating and interpreting information

Lesson 7: Strategies for Developing Students' Thinking Skills
7.1 Participants will be able to identify different "types" of thinking and how they can help to develop self-regulated learning that can be applied to reading graphics

7.2 Participants will be able to describe ways to infuse thinking opportunities into instruction with tactile graphics