The Common Core Standards and the Understanding by Design® Framework: Mathematics

With 46 states adopting the Common Core State Standards, teachers and school leaders are searching for resources and support for implementation. In this course, Jay McTighe and Grant Wiggins explain the relationship between this standards movement and the Understanding by Design® (UbD™) template for planning units of instruction.

The nature of the Common Core standards and their focus on understanding and practical application of knowledge and skills coincides with the way the UbD™ framework was designed. Through in-depth video presentations, McTighe and Wiggins will demonstrate why it is essential to closely read the standards document and show you alternative ways to unpack and group standards to optimize your instructional strategies. They introduce the new Template 2.0 as a practical and proven tool for unit planning with the standards.

McTighe then covers each of the three stages of unit planning and walk through the thinking processes required to carefully and thoughtfully plan units in math. The exemplar unit plan calls for acquisition, meaning-making, and transfer of knowledge and skills identified in the Common Core standards.

Course Objectives

By the end of this course, you will be able to

Module 1

- distinguish among content, process, and performance standards.
- read closely and interpret standards documents.
- use the UbD™ template to plan Stage 1 for a given standard.

Module 2

- understand that the Common Core State Standards require unpacking to teach and assess them effectively.
- unpack standards to complete Stage 1 of the UbD™ template.

Module 3

- understand the connection between Stage 1 and Stage 2 in the UbD™ framework.
- craft valid assessment that measures students' learning, meaning-making, and transfer.

Module 4

- distinguish among the different types of learning goals.
- draft a unit plan containing all elements of Stage 1: transfer, understandings, essential questions, knowledge, and skills.

Module 5

- identify the most appropriate evaluative criteria for assessment, mindful of the desired results from Stage 1.
- use facets of understanding to develop or select appropriate assessments.

Module 6

- understand principles of learning that guide instruction: T-M-A.
- develop Stage 3 lesson plans for a math unit.

Course Syllabus

Module 1	**The Common Core Standards and the Understanding by Design® Framework** Module Welcome ☐ Reading: What the Standards Look Like ☐ Video: A Close Reading of the Standards Documents Check for Understanding ☐ Video: UbD® Template 2.0 ☐ Application: Complete Stage 1 for a Common Core Standard Journal/Self-Assessment
Module 2	**Unpacking the Common Core State Standards** Module Welcome ☐ Reading: Unpacking the Standards ☐ Video: Inside-Out Method of Unpacking Standards Check for Understanding ☐ Video: Sideways Method of Unpacking Standards ☐ Application: Unpacking Standards: Inside-Out or Sideways? ☐ Video: Matrix and Top-Down Methods of Unpacking Standards ☐ Application: Unpacking Standards: Matrix Method or Top-Down? Journal/Self-Assessment
Module 3	**Assessment as Evidence** Module Welcome ☐ Video: Good Curriculum ☐ Reading—*Educational Leadership:* Building on the Common Core

	☐ Video: Thinking Like an Assessor Check for Understanding ☐ Reading: Identifying Evaluative Criteria for Assessments ☐ Video: Transfer Is Power ☐ Application: Assessment as Evidence Journal/Self-Assessment
Module 4	**Beginning to Design Units: Stage 1** Module Welcome ☐ Reading—*Educational Leadership:* In Defense of Mathematical Foundations ☐ Video: Developing Stage 1 for a Math Unit ☐ Reading: Different Types of Learning Goals Check for Understanding ☐ Application: Math Unit Planning: Stage 1 Journal/Self-Assessment
Module 5	**Designing Assessments for Units: Stage 2** Module Welcome ☐ Video: Evidence of Understanding ☐ Reading: Assessment of Transfer ☐ Video: Planning for Stage 2 Math Lesson ☐ Online Video: Math Curriculum Makeover Check for Understanding ☐ Application: Math Unit Planning: Stage 2 Journal/Self-Assessment
Module 6	**Designing Instruction for Units: Stage 3** Module Welcome ☐ Reading: Designing Lesson Plans ☐ Video: Planning for Math Lessons: Stage 3

	Reading: *Educational Leadership*—Preparing Students to Learn Without Us Check for Understanding Application: Math Unit Planning: Stage 3 Journal/Self-Assessment

Resources

Texts

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Wilson, W. S. (2011). In Defense of Mathematical Foundations. *Educational Leadership, 68*(6), pp. 70-73.

Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., & Tobin, R. (2004). The condition of education 2004 (NCES 2004-077). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Video

Wiggins, G., & McTighe, J. (Speakers). (2012). UbD experts Grant Wiggins and Jay McTighe discuss the correlation between UbD and the Common Core Standards.

