

## Differentiating Mathematics, K–5

2 Semester Hours  
of Graduate Credit



### Accessing the Course

To access your course, you will need an Internet-connected device such as a computer, tablet, or mobile phone. Courses run within the following web browsers:

- Chrome
- Firefox (Extended Releases are not supported)
- Internet Explorer 11 (Windows only)
- Edge (Windows only)
- Safari 10 and 11 (Macintosh only)

For the best experience, please ensure that your browser is up to date.

### Login

1. Go to <https://corwin.instructure.com>
2. Login with the email address and password you used to purchase the course.
3. If you don't remember the password you created, simply click [Forgot Password?](#) to reset it.

### Materials

All required readings and videos are included in the course as digital files, including content from:

Smith, N. N. (2017). *Every math learner: A doable approach to teaching with learning differences in mind, grades K–5*. Thousand Oaks, CA: Corwin.

### Course Description

Motivate your students by addressing their learning differences and make learning elementary math fun. This course equips you with practical strategies that show how to integrate a daily differentiation process into your classroom. Explore videos, vignettes, lesson ideas, and weekly lesson sequences along with rich K–5 mathematics examples to build a manageable framework and make math accessible for all students.

## Course Objectives

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




- identify students in terms of readiness, interest, and learning profile;
- create doable differentiation;
- use the KUD to unpack standards to design learning; and
- develop strategies for year-long achievement.

## Course Outline

This course is self-paced. However, if you are taking this course for graduate credit, please be aware of the due date of the final assignment, as this must be met in order to receive credit.

## Key Dates

Many students find the courses most rewarding if they work through at a steady pace, setting aside dedicated time to take the course. Completing one module per week is a common goal.

<p><b>Module 1</b></p> 	<p><b>Knowing Students' Learning Differences</b></p> <p>After completing this module, you will be able to</p> <ul style="list-style-type: none"> <li>• describe categories that make learners unique, and</li> <li>• discuss and apply the characteristics of the modes of differentiation to theoretical and real-world scenarios.</li> </ul>	<p><b>2.5 hrs</b> Typical time to complete</p>
<p><b>Focus</b></p>	<p>Three Characteristics of Differentiation</p>	
<p><b>Read</b></p>	<p>What Is Differentiation?</p>	
<p><b>Watch A</b></p>	<p>Getting Started With Differentiation</p>	
<p><b>Watch B</b></p>	<p>Ways to Differentiate</p>	
<p><b>Analyze and Evaluate</b></p>	<p>Applying Differentiation</p>	
<p><b>Discuss</b></p>	<p>Differentiation in Your Classroom</p>	
<p><b>Quiz</b></p>	<p>Knowing Students' Learning Differences</p>	<p>Graded</p>
<p><b>Module 2</b></p> 	<p><b>Differentiation at a Glance</b></p> <p>After completing this module, you will be able to</p> <ul style="list-style-type: none"> <li>• describe the characteristics of a differentiated lesson, and</li> <li>• compare and contrast what a differentiated lesson is and is not.</li> </ul>	<p><b>2.5 hrs</b> Typical time to complete</p>
<p><b>Read</b></p>	<p>What Differentiation Is and Is Not</p>	
<p><b>Watch A</b></p>	<p>Balancing Differentiation During M.A.T.H. Centers</p>	
<p><b>Watch B</b></p>	<p>Reflecting on the M.A.T.H. Centers</p>	
<p><b>Create</b></p>	<p>M.A.T.H. Stations</p>	
<p><b>Explore</b></p>	<p>How Do Others Differentiate?</p>	
<p><b>Quiz</b></p>	<p>Differentiation at a Glance</p>	<p>Graded</p>
<p><b>Reflect</b></p>	<p>Differentiation at a Glance</p>	
<p><b>Module 3</b></p> 	<p><b>Strategies for Understanding Learners</b></p> <p>After completing this module, you will be able to</p> <ul style="list-style-type: none"> <li>• identify the characteristics of student readiness, interest, and learning profile; and</li> <li>• discuss strategies for determining student readiness, interest, and learning profile.</li> </ul>	<p><b>2.5 hrs</b> Typical time to complete</p>
<p><b>Read A</b></p>	<p>Knowing Your Learners' Readiness</p>	
<p><b>Watch A</b></p>	<p>Knowing Your Learners' Readiness</p>	

<b>Read B</b>	Knowing Your Learners' Interest	
<b>Watch B</b>	Knowing Your Learners' Interest	
<b>Read C</b>	Knowing Your Learners' Learning Profile	
<b>Watch C</b>	Knowing Your Learner's Learning Profile	
<b>Discuss</b>	Areas to Address	
<b>Quiz</b>	Strategies for Understanding Learners	Graded
<b>Project</b>	Strategies for Understanding Learners	Submit for grading
<b>Update Your Portfolio</b>	Differentiation	

## Module 4



### Rigorous Math That Makes Sense

- After completing this module, you will be able to
- apply the standards for mathematical practice, and
  - unpack a mathematics standard into KUD.

**2.5 hrs**  
Typical time to complete

<b>Read A</b>	Making Sense of Rigorous Mathematics	
<b>Watch A</b>	Rigorous Mathematical Content	
<b>Read B</b>	Teaching Up	
<b>Watch B</b>	The Heart of Differentiation	
<b>Analyze and Create</b>	Know, Understand, and Be Able to Do	
<b>Dialogue</b>	School-Based Planning Strategies	
<b>Quiz</b>	Rigorous Math That Makes Sense	Graded
<b>Reflect</b>	Rigorous Math That Makes Sense	
<b>Update Your Portfolio</b>	Rigorous Math That Makes Sense	

## Module 5



### Differentiation by Readiness

- After completing this module, you will be able to
- design tasks differentiated by readiness, and
  - understand how to use a KUD to help plan and inform readiness differentiation.

**2.5 hrs**  
Typical time to complete

<b>Read</b>	Readiness Differentiation	
<b>Watch</b>	Planning for Readiness Differentiation	
<b>Observe or Create</b>	Differentiated Tasks	
<b>Discuss</b>	Think Dots	
<b>Quiz</b>	Differentiation by Readiness	Graded
<b>Update Your Portfolio</b>	Differentiation by Readiness	

## Module 6



### Differentiation by Interest

- After completing this module, you will be able to
- design tasks differentiated by interest, and
  - understand strategies for implementing choice by interest that aligns with the learners' mathematical goals and are aligned to the unit's KUDs.

**2.5 hrs**  
Typical time to complete

<b>Read</b>	Interest Differentiation	
<b>Watch</b>	Planning for Interest Differentiation	
<b>Create</b>	Developing a KUD by Interest	
<b>Discuss</b>	Offering Choice	
<b>Quiz</b>	Differentiation by Interest	Graded
<b>Update Your Portfolio</b>	Differentiation by Interest	

## Module 7



### Differentiation by Learning Profile

- After completing this module, you will be able to
- define Sternberg's triarchic theory and Gardner's multiple intelligences, and
  - provide task examples aligned to one or more of the three areas described in Sternberg's triarchic theory and/or Gardner's multiple intelligences.

**2.5 hrs**  
Typical time to complete

<b>Read</b>	Learning Profile Differentiation	
<b>Watch A</b>	Planning for Learning Profile Differentiation	
<b>Watch B</b>	Differentiating for Learning Profile in a Fourth-Grade Classroom	
<b>Dialogue</b>	Where Do I Fit In?	
<b>Quiz</b>	Differentiation by Learning Profile	Graded
<b>Project</b>	Standards and Theories of Intelligences	Submit for grading
<b>Reflect</b>	Differentiation by Readiness, Interest, and Learning Profile	
<b>Update Your Portfolio</b>	Differentiation by Learning Profile	

## Module 8



### Creating a Healthy Learning Environment

- After completing this module, you will be able to
- describe what a fair, respectful, and healthy math learning environment for everyone looks like; and
  - discuss the significant impact of teaching students about mindsets and how it impacts student academic performance.

**2.5 hrs**  
Typical time to complete

<b>Read</b>	Setting the Right Tone	
<b>Watch A</b>	Establishing and Maintaining a Healthy Classroom	
<b>Watch B</b>	Encouraging a Growth Mindset in Primary Classrooms	
<b>Watch C</b>	Introducing a Growth Mindset in the Intermediate Classroom	
<b>Create and Reflect</b>	Working With Mindsets	
<b>Discuss</b>	Valuable Strategies	
<b>Quiz</b>	Creating a Healthy Learning Environment	Graded
<b>Project</b>	Creating a Healthy Learning Environment	Submit for grading

## Module 9





### Making Differentiation Natural

- After completing this module, you will be able to
- determine how to organize groups by task and how to make differentiation natural, and
  - develop a system for monitoring time on task and building in time for flexibility.

**2.5 hrs**  
Typical time to complete

<b>Read</b>	Mastering and Modeling Routines	
<b>Watch</b>	Using Anchor Activities for Classroom Management	
<b>Create</b>	Day-to-Day Routines	
<b>Dialogue</b>	Late Work: To Accept or Not Accept?	
<b>Create and Reflect</b>	Working With Mindsets	
<b>Quiz</b>	Making Differentiation Natural	Graded
<b>Update Your Portfolio</b>	Learning Environment	

 <p><b>Module 10</b></p>	<h3>Designing Effective Assessments</h3> <p>After completing this module, you will be able to</p> <ul style="list-style-type: none"> <li>describe the principles for developing effective assessments; and</li> <li>discuss the different purposes of differentiated assessments, including checks for understanding, preassessments, formative assessments, student self-assessments, and summative assessments.</li> </ul>		<p><b>2.5 hrs</b> Typical time to complete</p>
	<b>Read</b>	Assessing and Evaluating	
	<b>Watch</b>	Formative Assessment With Feedback	
	<b>Analyze, Create, Reflect</b>	Assessment Feedback	
	<b>Dialogue</b>	Data-Driven Instruction	
	<b>Quiz</b>	Designing Effective Assessments	Graded
	<b>Reflect</b>	Designing Effective Assessments	
	<b>Update Your Portfolio</b>	Designing Effective Assessments	

 <p><b>Module 11</b></p>	<h3>The Differentiated Mathematics Classroom</h3> <p>After completing this module, you will be able to</p> <ul style="list-style-type: none"> <li>examine what a typical week in your primary or intermediate mathematics classroom should look like, and</li> <li>identify differentiation strategies you can implement in your classroom.</li> </ul>		<p><b>2.5 hrs</b> Typical time to complete</p>
	<b>Read</b>	A Week in the Differentiated Math Classroom	
	<b>Watch</b>	Advice for Getting Started	
	<b>Analyze and Reflect</b>	Daily Lesson Plans	
	<b>Discuss</b>	Opportunities and Challenges	
	<b>Quiz</b>	The Differentiated Mathematics Classroom	Graded
	<b>Update Your Portfolio</b>	The Differentiated Mathematics Classroom	

<h3>Course Capstone</h3>		
<b>Final Project</b>	Differentiating Mathematics, K–5	Submit for grading
<b>Final Reflect</b>	Differentiating Mathematics, K–5	
<b>Update Your Portfolio</b>	Differentiating Mathematics, K–5	

### InTASC Standards Alignment

Our courses have been aligned to the InTASC Model Core Teaching Standards that outline what all teachers across all content and grade levels should know and be able to do to be effective in today's learning contexts. You can also view alignment to other popular frameworks [here](#).

Standard	Covered in Modules
Standard 1: Learner Development	1, 3, 6, 7, 8, 11
Standard 2: Learning Differences	1, 2, 3, 7, 8, 11
Standard 3: Learning Environments	2, 5, 6, 7, 8, 9, 10, 11
Standard 4: Content Knowledge	4, 5
Standard 5: Application of Content	4, 5, 6, 9
Standard 6: Assessment	10
Standard 7: Planning for Instruction	10, 11
Standard 8: Instructional Strategies	10, 11

## Course Policies

### Grading Policy and Rubric

<b>Component(s)</b>	<b>Percentage of Final Grade</b>
Final Project	45%
Module Projects	35%
Module Quizzes	20%