CORWIN Advance

Course Syllabus and Requirements

Surface, Deep, and Transfer Learning in the Visible Learning^{plus} Mathematics Classroom

About Corwin Advance

Corwin Advance courses are created from popular Corwin books in direct consultation with our author experts. Each course features learning and skills you can transfer to your classroom immediately, using video from classrooms showing strategies in action, along with interviews with authors, teachers, and students. All Corwin Advance courses are designed to support teacher license renewal and professional growth with the goal of improving outcomes for all students.

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:

Hattie, J., Fisher, D., & Frey, N. (2017). *Visible learning for mathematics, grades K–12: What works best to optimize student learning.* Thousand Oaks, CA: Corwin.

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Course Description

The purpose of this course is to connect the Visible Learning research to instructional strategies that accelerate student learning in mathematics education. You will examine dynamic and high-probability teaching strategies that support surface, deep, and transfer phases of learning and see these strategies in action with video from real classrooms. This course is designed for teachers focused on mathematics instruction across all grades K–12.

Course Objectives

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

- explain and evaluate the characteristics of mathematical tasks and talk that make learning visible;
- demonstrate the importance of well-timed, effective strategies and instructional routines for mathematics education; and
- employ mathematics curriculum and instruction practices as they relate to the three-phase learning process (surface learning, deep learning, and transfer learning).

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.

Module 1

Effective Mathematical Tasks and Talk

After completing this module, you will be able to:

- explain and evaluate the characteristics of mathematical tasks that make learning visible.
- explain and evaluate the characteristics of mathematical talk that make learning visible.

3.5 hrs
Typical time to complete

Focus	Anticipation Guide	
Read	Mathematical Tasks and Talk That Guide Learning	
Watch A	What We Mean by Tasks With Rigor	
Watch B	Questioning That Guides Learning	
Watch C	Student Discourse That Builds Understanding	
Analyze and Create	Adjusting the Rigor	
Discuss	Implementing Rich Tasks and Talk	
Dialogue	Quality Resources for Teacher Questioning	
Quiz	Which Level? Which Type?	Graded
Project	Analyzing Tasks and Talk	
Reflect	The Right Task at the Right Time	
Update Your Portfolio	Tasks and Talk That Guide Learning	

Module 2

Surface Learning for Mathematics

After completing this module, you will be able to:

- describe what surface learning looks like and sounds like in the mathematics classroom.
- demonstrate the connection between teacher clarity and surface mathematical learning.
- analyze examples of effective, evidence-based instructional strategies for surface learning of mathematics content.

3.5 hrs
Typical time to complete

Focus	Surface Learning	
Read	Surface Mathematics Learning Made Visible	
Watch A	Surface Mathematics Learning	
Watch B	Effective Surface Learning Instructional Strategies	
Watch C	Surface Learning in Action	
Analyze and Create	Reviewing the Research on Surface Learning Instructional Strategies	
Discuss	Surface or Superficial Learning	
Dialogue	Surface Learning in a Unit	
Quiz	Being Strategic in Surface Level Learning	Graded
Reflect	Surface to Deep Learning	
Update Your Portfolio	Surface Learning Instructional Strategies	

Module 3

Deep Learning for Mathematics

After completing this module, you will be able to:

- describe what deep learning looks like and sounds like in the mathematics classroom.
- demonstrate the connection between teacher clarity and deep mathematical learning.
- analyze examples of effective, evidence-based instructional strategies for deep learning of mathematics content.

3.5 hrs
Typical time to complete

Focus	The Second Phase of the Learning Process	
Read	Deep Mathematics Learning Made Visible	
Watch A	Deep Mathematics Learning	
Watch B	Effective Deep Learning Instructional Strategies	
Watch C	Deep Learning in Action	
Create and Reflect	Practicing a Deep Learning Instructional Strategy	
Discuss	Discourse in Deep Learning for English Language Learners	
Dialogue	Deep Learning in a Unit	
Quiz	Deep Learning Examples and Non-Examples	Graded
Reflect	Mathematical Practices in Deep Learning	
Update Your Portfolio	Practicing Deep Learning Strategies	

Module 4

Transfer Learning for Mathematics

After completing this module, you will be able to:

- describe what transfer learning looks like and sounds like in the mathematics classroom.
- demonstrate the connection between teacher clarity and transfer mathematical learning.
- analyze examples of effective, evidence-based instructional strategies for transfer learning of mathematics content.

3.5 hrs
Typical time to complete

Focus	The Third Phase of the Learning Process	
Read	Transfer Mathematics Learning Made Visible	
Watch A	Transfer Mathematics Learning	
Watch B	Transfer Learning to Real World Situations	
Watch C	Transfer Learning in Action	
Evaluate and Create	Evaluating Transfer Tasks	
Discuss	The Right Transfer Task at the Right Time	
Dialogue	Transfer Learning in a Unit	
Quiz	The Right Match	Graded
Reflect	Assessment-Capable Visible Learners and Transfer Learning	
Update Your Portfolio	Transfer Tasks	
	Capstone	
Final Project	Visible Learning for Mathematics Plan	Submit for Grading
Final Reflect	Consider Thy Impact	
Update Your Portfolio	Visible Learning for Mathematics Plan	

InTASC Standards Alignment

Our courses have been aligned to the InTASC Mode 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	1-4
Standard 4: Content Knowledge	2, 3, 4
Standard 5: Application of Content	1
Standard 7: Planning for Instruction	1
Standard 8: Instructional Strategies	2, 3, 4

Course Policies

Grading Policy and Rubric

Letter Grade	% Grade
A	94–100
A-	90–93
B+	87–89
B	84–86
B-	80–83
C+	77–79
C	74–76
C-	70–73
D*	***65–69***
F*	***0–64***

Component	Percentage of Final Grade
Final Project	45%
Module Projects	35%
Module Quizzes	20%

**Students earning a D grade or below will not be eligible to receive a Certificate of Completion or graduate credit.*

Assignment Resubmission Policy

Students receiving a non-passing grade in the course have one opportunity to re-submit a project assignment to improve their grade. To resubmit an assignment please work directly with your course facilitator; you have seven days from completion of the course to resubmit the assignment.

Facilitation Model

Throughout your course experience, you will have a dedicated facilitator to answer questions and provide feedback on your submitted projects. Your facilitator will respond to any questions within one business day. All submitted assignments will receive written feedback and grades within 5 business days of their submission date.

Standards of Academic Integrity

Corwin Advance maintains high standards of academic integrity related to student academic performance in our courses. When enrolling in a Corwin Advance course you do so with the understanding and agreement to produce your own work, to submit assignments that you completed yourself, and to take quizzes and exams without the assistance of others. Course facilitators will enforce our Standards of Academic Integrity Policy and will report to Corwin all suspected violations. Read the full Standards of Academic Integrity Policy at the Corwin Advance Academic Integrity web page.

University Graduate Credit & Transcript

If you select a course that is eligible for graduate credit, that credit will be awarded upon successful completion of the course by the university you select upon purchase. Upon successful completion Corwin will communicate your final grade to the university and you will be directed to the university to register and access your transcript. This could take 2–3 weeks depending on the university, though you will receive a Corwin Certificate of Completion upon completion of the course. For more details on Corwin Advance university partners visit our web page, or if you have questions, contact advancesupport@corwin.com.