



**Your  
Education  
Ally.**

By Teachers,  
*For Teachers.*

# Course Syllabus

**Name:**

**Date:**

## Today is a Great Day to Learn Something New!

Professional learning to meet your needs.

Engaging and applicable, ELEVATE courses are the core of Teaching Channel. We offer a variety of courses that meet the continuing education needs of teachers from across the country. Teaching Channel courses work perfectly for license renewal needs, working to move up through salary schedules, or for professional learning to support improved student outcomes.

Teaching Channel provides continuing education graduate credit courses that have been approved and endorsed by regionally accredited colleges and universities from across the United States.



**Current University Partners** (See a current list of academic partners on our website)

Continuing Education courses are approved by our regionally accredited (HLC, NECHE, WSCUC, NWCCU) partners by review of syllabi, content, and coursework expectations. (Indicate anticipated university/college partner below, if applicable.)

### Course Creation and Evaluation:

Courses are created and evaluated by educators with a master's degree or higher in an education-related field and five or more years of classroom experience in PreK-12th grade education. Course evaluators provide personalized, specific feedback for assignments and rubric-based grading aligned with best practices in professional education.

#### Spring Term

Registrations Accepted  
July 16-March 15  
Coursework Due\*  
April 15

#### Summer Term

Registrations Accepted  
December 16-July 15  
Coursework Due\*  
August 15

#### Fall Term

Registrations Accepted  
March 16-October 22  
Coursework Due\*  
November 15

\*Or first business day after the 15th if due date falls on a weekend.

## Coursework Details

The Rigor of Teaching Channel Graduate-Level, Continuing Education Courses.

### Professional Learning Model

Our research-based Professional Learning Model is used to design ELEVATE continuing education courses. The model includes five elements used to guide professional learning and to positively impact student outcomes:



### Course Content

**ELEVATE Courses** are self-paced, and per standard practice in the field, each credit carries the equivalent of fifteen hours of content and coursework. Participants explore resources that include a solid balance of research and applicability. All courses feature video clips, research-based articles, and interactive elements to enhance and support learning. To receive credit, participants must complete the following requirements according to expectations outlined in our course rubric:

**Response Questions:** Connect new learning from course resources to current pedagogy.

**Resource Review:** Find resources related to the course topic to extend learning and solve problems of practice.

**Applications:** Complete a variety of assignments encouraging participants to implement new learning in their classrooms or schools.

**Reflection:** Write a reflection paper that activates critical thinking and inspires the transformation of future professional practice.

All coursework is to be completed in the Teaching Channel online environment.

<b>Course Name</b>	Moving Math: How to Use Differentiated Mathematics Stations
<b>Course Number</b>	OL 5854
<b>Course Credits</b>	3 of Flex Credit

*NOTE: This syllabus is an outline of the course requirements and is subject to change; the coursework will be completed and submitted in the online environment where you will have full access to a variety of media, links, and other online tools required to satisfactorily complete this course.*

### **Course Description:**

Math has never been this fun! Dig into this course with a new edition of Dr. Nicki Newton's text to learn how to direct and support students in Guided Math. Both new and seasoned Guided Math practitioners will find much to develop and refine instruction in Guided Math Workshop. Investigate and design strategies to encourage collaboration and math talks, and create 5 new differentiated workstations. Give new life to student-student and student-teacher interactions through effective questioning, and inform your grouping processes by exploring new ideas for assessments. Finally, get great ideas for organizing and maintaining your Guided Math Workshop. Whether you are brand new to this framework or a Guided Math veteran, you'll have the opportunity to create and/or update your materials and activities to meet best practice standards.

### **Goals and Objectives:**

As a result of participation in this course, participants will:

1. Use provided prompts specific to Guided Math to describe assumptions and insights of practitioners, researchers and self, including how the information relates to professional educational practice.
2. Design differentiated workstations to for students to work on specific math skills.
3. Prepare an activity focusing on math talks or other digital tools for students to collaborate with one another in Guided Math Workshop.
4. Implement assessments to inform student groupings for Guided Math Workshop.
5. Develop an action plan to challenge the status quo related to questions and math misconceptions.

### **Required Text/Articles:**

Text(s): Newton, N. (2021) *Guided math in action: Building each student's mathematical proficiency with small group instruction, Second edition*. Routledge.

All readings and resources are linked within their respective assignments.

All coursework is to be completed in the Teaching Channel online environment.

## Knowledge Base:

The knowledge base of this course, in part, is affirmed in the writing and research of these references:

Barton, C., (2019). *How I wish I'd taught maths: Lessons learned from research, conversations with experts, and 12 years of mistakes*. West Palm Beach, FL: Learning Sciences International.

Blanke, B. (2018). *Mathematical discourse: Let the kids talk!* Huntington Beach, CA: Shell Education.

Boaler, J. (2015). *Mathematical mindsets: Unleashing students' potential through creative math, inspiring messages, and innovative teaching*. San Francisco, CA: Jossey-Bass.

Quigley, C., et al. (2019). *An educator's guide to STEAM: Engaging students using real-world problems*. New York, NY: Teachers College Press.

Smith, P., Bill, V., Sherin, M. (2019). *The five practices in practice: [Elementary] successfully orchestrating mathematics discussions in your elementary classroom*. Thousand Oaks, CA: Corwin.

Wong, B., Bukalov, L. (2020). *The math teachers' toolbox: hundreds of practical ideas to support your students*. New York, NY: Jossey-Bass.

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## Teaching Channel Course Rubric

All course submissions must meet general graduate level standards through the use of correct grammar, spelling, and mechanics. Each paragraph should be clearly organized and include 5 sentences or more. If work does not meet the above criteria, it will be returned to the student for resubmission.

Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
<b>Statement of Intention and Awareness</b>	The evaluator will only review the Statement of Intention and Awareness for a response to each prompt. If a student does not respond to each prompt, the Statement will be returned to the student for resubmission. The student's Statement of Intention and Awareness will be evaluated as part of the Reflection.		
<b>Investigation: Read and Respond</b>	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings. In at least half of the responses, the participant also makes inferences related to professional practice or supports answers with professional experiences.	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.

All coursework is to be completed in the Teaching Channel online environment.

Investigation: Resource Review Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
<b>Summary of Resource</b>	Coursework summarizes the main ideas presented in the resource and includes at least one instance of critical analysis (i.e. asks questions, looks for gaps in information, disputes contradictions, etc.)	Coursework summarizes the main ideas presented in the resource.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
<b>Relation to Personal Assumptions or Course Content</b>	Coursework provides more than one detailed example of how the resource supports or challenges personal assumptions and/or course content.	Coursework provides one example of how the resource supports or challenges personal assumptions and/or course content.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
<b>Impact on Professional Practice</b>	Coursework provides more than one clear explanation of how the information in the resource could impact professional practice.	Coursework provides one explanation of how the information in the resource could impact professional practice.	

All coursework is to be completed in the Teaching Channel online environment.

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Application Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
<b>Planning, Development and Execution</b>	Coursework shows complete planning, development and/or execution of application, clear articulation of details and inclusion of polished required artifacts.	Coursework shows complete planning, development and/or execution of application and inclusion of required artifacts.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
	Coursework includes creative or innovative application of new knowledge and skills from course content to professional practice.	Coursework includes application of new knowledge and skills from course content to professional practice.	
<b>Written Requirements</b>	Coursework provides clear, logical, and organized responses to any writing prompts in the application. It also includes at least one detailed connection to course objectives, student learning goals or transformation of professional practice.	Coursework provides clear, logical, and organized responses to any writing prompts in the application.	

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Reflection Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
<b>Connection to Statement of Intention and Awareness</b>	Coursework includes an evaluation of both learning goals articulated in the participant's Statement of Intention and Awareness from Module 1. Participant includes one future learning goal related to course content.	Coursework includes an evaluation of one of the learning goals articulated in the participant's Statement of Intention and Awareness from Module 1.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
<b>Summary of Learning</b>	Coursework includes three or more detailed connections to specific assignments completed or course content viewed (assigned readings or videos).	Coursework includes two general connections to course content.	
<b>Description of Positive Influence or Transformation</b>	Coursework includes two or more specific ideas for changes in one's professional practice with timelines. OR Coursework includes two or more detailed action steps with timelines for positively impacting other stakeholders.	Coursework includes one general idea for changes in one's professional practice. OR Coursework includes one action step for positively impacting other stakeholders.	

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## Module 1

### 1. Tell us about yourself!

Before we begin with course content, write 1 sentence about yourself. You will be asked to include this background in each of the modules submitted for the course. This provides context for your responses and enables the course evaluator to respond with feedback tailored to your specific role in education. Here are three examples to guide you:

- I'm a 4th grade teacher and teach all subjects.
- I'm a middle school counselor.
- I'm out of the classroom on leave this year, but next year I'll be back teaching 9th grade science.

### 2. Statement of Intention and Awareness

At Teaching Channel, we want your learning to be purposeful and applicable to your professional practice. To do that, research says learners need to first identify their motivations and goals. Next, learners assess prior knowledge and previous experiences so they can create deeper connections to the course material.

Using the guidelines below, please address the following in your Statement of Intention and Awareness, in a total of two paragraphs, or more:

1. Share your motivation for learning about Guided Math .
2. Summarize your previous knowledge or experience with Guided Math.
3. List your own two learning goals for the course.

In Module 1, your evaluator will review your Statement of Intention and Awareness to ensure it is complete. It will be graded within your Reflection Requirement in Module 3, where you'll revisit your Statement of Intention and Awareness to identify your growth and learning from the beginning of the course to the end.

### 3. Investigation: Read and Respond

After reading the assigned resources, please respond in one paragraph or more for each prompt (unless otherwise noted). Please be sure that each paragraph meets our length requirement of 5 sentences, or more.

- A. Chapter 1 discusses the goal, benefits, and upgrades to Dr. Nicki's Guided Math framework (between the text's first and second edition). Please respond to one of the following:
  - If you are new to Guided Math, explain how you can take advantage of the benefits of Guided Math.
  - If you already teach using Guided Math: select one of the "upgrades" from Fig. 1.4 and explain how you can include that upgrade in your future math instruction.

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- B. After reading Chapter 2, articulate your beliefs about teaching students where they are, including how your beliefs match or differ from one or more beliefs listed in Fig 2.1.
- C. Describe how differentiation relates to Guided Math, based either on your experience or on your learning so far.
- D. In what ways do you help your students to "prove their thinking"?
- E. Chapter 4 explores some of the "nuts and bolts" of how Guided Math is used. Detail concerns or challenges you'll need to address to practice Guided Math with fidelity.
- F. Describe how Guided Math works to reach students' "zone of proximal development."
- G. After reading Chapter 7, provide an example of how you can help students with targeted skills support at home.
- H. Please explain "mathematical disposition", and why it plays a key role in determining math proficiency.
- I. Express what you already do or will do to encourage your students to think of themselves as mathematicians.
- J. Describe one change you will make to your math questioning after reading Chapter 10.

## Module 2

### 1. Tell us about yourself!

Provide a one sentence or longer explanation of your role in the field of education.

### 2. Application: Schedule Your Math Block

Whether you are a newly minted or a well-versed Guided Math-er, you understand the importance of a strong schedule.

Read Jodi Durgin's post, "Daily Math Block Schedule Examples for Guided Math Workshop," and consider the different options shared in the text for scheduling your math block. Then design your own schedule example, showing how your students will flow through their math class. Please complete the option below that aligns best with your professional role.

- If you are new to Guided Math or just beginning implementation, design an exemplar schedule for you to refer to as you continue to develop your Guided Math practice. Along with your schedule, please submit 2 or more paragraphs describing rationale for what you included in your schedule.
- If you are actively using Guided Math in your classroom, select 2 previous schedules and revise them according to emerging needs of your students. Along with your revised schedules, please submit 2 or more paragraphs describing rationale for how you revised the schedule(s).

### 3. Application: Innovate

One of the beauties of Guided Math is having a wide variety of ways students can learn and

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practice math. One of the challenges is making sure the variety of materials are intentional, relevant, and thoughtfully accessible.

Please read, "Introduce Guided Math in 3 Proactive Steps (and Keep it Going All Year Long!)" by Jill Starr; watch the following videos about organizing your Math Workshop, and complete one of the options that follows. Use Figures 1.4, 2.1, and Dr. Nicki's Workshop References to inspire you!

#### Option 1: Create

If you are new to Guided Math or are using some of the practices, create an overview plan of holistic Guided Math instruction based on your readings from the text. Although you do not need to provide extreme detail (the videos above are inspiration for now!), your 1 page or more plan should include your thoughts on the following:

- 1 or more beliefs with which you will approach your Guided Math instruction
- Materials you will need to find or create
- Possible protocols and/ procedures
- Anything else that will help you to be successful!

#### Option 2: Refine

You "get" Guided Math, and you've been able to implement it in your classroom. You are now at a point to assess your math block: try new ideas, review what works and what doesn't, and identify considerations for revision.

Review your protocols, procedures, materials and beliefs with which you approach your Guided Math instruction, and create a 1 page or more plan to refine, upgrade, or enhance your math block. Be sure to include rationale for any changes you'd like to make.

#### Option 3: Imagine

Perhaps you are taking this course to solidify your understanding of Guided Math, but you are not implementing the actual framework yet. If this is the case, craft a narrative (1 page or more) describing what would it look like when and if you were to start implementing Guided Math. Use the readings and the video supports to guide you. Include: the protocols and procedures, possible workstations and materials, and anything else you might need to be successful.

#### 4. Application: Implement

Dr. Nicki often points to group flexibility as a strength for the Guided Math framework, and assessments play a strong role in creating those small groups! Watch this video to be inspired.

Please read, "How to Organize Small Groups for Math Workshop," by Laura Santos, and review Chapters 5, 7, 9, and Figure 3.2.

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Then, develop 1 pre-assessment and 2 formative assessments for grouping your students, using the content area or skill you'd like to focus on. Use the examples in the text and the article to inspire you, and revise them to suit your purpose.

Then, in one paragraph more per assessment, please explain how your assessment connects to one or more of the five elements of mathematical proficiency (below) to inform your guided math groupings.

Math Proficiency:

- Conceptual understanding
- Procedural fluency
- Strategic competence
- Adaptive reasoning
- Mathematical disposition

#### 5. Investigation: Resource Review

To complete the Resource Review, identify two resources related to (but not directly from) the course content to enhance your professional practice, and deepen your understanding of the course content.

Resources may include blog posts, podcasts, websites, videos, documentaries, films, articles, books, or journals, published within the last five years. To find a resource, we suggest a web search (Google) using terms or ideas from the course you'd like to learn more about, or that relate to your specific professional learning needs.

Please provide the resource title, author, copyright or publishing date, and URL (if applicable). Then, in two paragraphs or more per resource, respond to one or more of the following:

- Share information about how the resource information could impact your professional practice
- Explain how each resource supports or challenges your professional assumptions
- Summarize any questions that remain, i.e.: gaps in information or contradictions

To meet "A" criteria as outlined in the course rubric, for each resource, include two or more different examples of how the resource supports or challenges assumptions, *and* explain two ways this resource will impact your professional practice.

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## Module 3

### 1. Tell us about yourself!

Provide a one sentence or longer explanation of your role in the field of education.

### 2. Application: Collaborate

Guided Math framework lends itself well to promoting student collaboration, which can be achieved in a variety of ways.

Please read, "5 Math Activities that Promote Collaborative Learning in the Classroom," by Jeff Todd.

Then, complete one of the following options to bring collaborative experiences to your students. You may use the content or skill area for which you wrote your assessments in Module 2, Application 5, if you choose. Use the pulldown triangles to learn more about each option.

#### Option 1: Math Talks

Academic discourse is a fantastic way to foster student collaboration in math, but students need to understand how to have math discussions, along with the practice of doing them.

Please review Chapter 10 (especially Figure 10.7) and watch the following videos to see math talks and discussions in action:

Use the examples above to inspire you!

Please create a 1 page or more plan for how you'll facilitate and run a math talk within your Guided Math Workshop. Be sure to include how you will plan for groups or pairs.

#### Option 2: Collaboration with Digital Tools

There's a plethora of online tools to help students with math through collaboration. Here are a few examples:

- Padlet helps you create collaborative bulletin boards with images, video, and text
- Play collaborative games that promote teamwork, leadership, learning, and FUN!- Kahoot and Quizziz

Revise or create a lesson or activity you currently use to include digital tools to support student collaboration. Submit the revised lesson or activity, along with a 1 page or more overview including:

- Materials needed
- Objective of the lesson or activity

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- Rationale for choosing the digital tool(s) you did
- How collaboration will support the skill or content

### Option 3: Create or Revise a Collaborative Activity

All set with math talks or digital tools? That's ok! This option gives you the room to create or revise a collaboration activity with new-to-you strategies, digital based or not.

To inspire you, read, "Using Student-Led Collaborative Learning to Empower Math Students," by Joseph Manfre, and enjoy this video showing a collaborative math strategy in remote instruction.

If you've used Guided Math for a while, you likely have a collaborative activity to make better, or a desire to refresh your options with something new. Here's your chance to do it. Please submit your new or revised activity in one page or more, including:

- Materials needed
- New-to-you strategy or strategies used, and why
- Objective of the lesson or activity
- Grouping protocols you will use, and why
- How collaboration will support the skill or content

### 3. Application: Challenge the Status Quo

Please complete and submit one of the following options to challenge the status quo in math instruction. Use the pulldown triangles to learn more about each option.

#### Option 1: Intrinsic Motivation

Questioning in math instruction helps students to process their learning, and so much more! Please read, "How Asking More Effective Questions Can Increase Student Learning in Math," by Rachel Fuhrman, and review Chapter 10.

Now, using a variety of examples from Chapter 10, create a Question Bank as a resource to you for effective questioning. Please include 15 or more questions in your choice of categories, along with the context for each question.

You are welcome to use our Question Bank template, or create a format of your own. Please feel free to make this your own permanent resource to use beyond this course!

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## Option 2: Extrinsic Influence

Both adults and students carry misconceptions of what "belongs" in math class, how students should learn math, and what it means to be a mathematician. Guided Math does a great job of pushing up against the status quo by addressing and debunking long held beliefs about math.

Please review one or more of the following resources, then complete the assignment that follows.

- "Twelve Math Myths," from the Department of Development Education, Fairbanks, AK
- "Guided Math: Best Practice for the General Education Classroom," by Kaylee Cloyed
- "Debunking the Myth of the 'Math Person,'" by Jessica Lauer Tilli
- "Teaching Math Isn't Just About Numbers, it's About Us," by Shakiyya Bland

For this option, generate a creative and informational artifact to educate families, colleagues, and/or students about how Guided Math addresses common misconceptions, embraces philosophy, and encourages active engagement with math.

The format of your artifact is yours to choose - blog post, informative letter, video, digital poster, anchor chart - and we encourage use of color, design, and any digital tools with which you are familiar.

In your artifact, please include:

- 2 or more examples of how Guided Math specifically addresses or debunks previous misconceptions, using research to support your contentions
- Benefits of using Guided Math as opposed to previous practice
- Explanation for the necessity of learning math in a collaborative and student-driven environment

Your artifact should be the equivalent of 1 page or more in length.

### 4. Application: Work Stations

You've been working on many other aspects of Guided Math, and you are finally at the point of designing some math workstations! Review Chapters 11 and 12, and watch this video to get yourself into the workstation frame of mind!

Now, using your math standards or the free version of IXL, create 5 math workstations relevant to your grade level. You may modify workstations from the text so they are "new-to-you," or use your imagination to create brand new workstations. You may use our Workstations template or design a format of your own.

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Please include the following components for each workstation:

- Description of each workstation, including whether the workstation is for individual work or multiple students
- Standard(s), Skill(s), or Content aligned with the workstation
- Materials needed
- An explanation of differentiation strategies
- Examples of how you will keep students accountable
- How you would provide feedback to students

## 5. Reflection

In 2 or more double-spaced pages (12pt font), synthesize your learning by summarizing how your learning in this course has evolved your professional practice. To meet "A" criteria as outlined in the course rubric, your reflection should include:

- A comparison of your learning goals from your Statement of Intention and Awareness in Module 1 with your new learning, to assess how you've grown.
- One key takeaway from your learning.
- One future learning goal related to course content.
- Three or more detailed connections to specific course applications, information from readings, and other completed course activities.

And your choice of *one* of the following:

- Two or more specific ideas for changes to your professional practice with timelines for implementing changes.
- Two or more detailed action steps you'll take to positively influence others (students, parents, colleagues, administrators, community members, etc.), including implementation timelines.

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