

Growth Mindset in Math EDUO 9575 1 Semester Credit/Unit

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Public Syllabus

Note: This is a Public syllabus of the course. For a fully detailed syllabus, please email the instructor.

Course Overview:

Help students unleash their potential to learn math through innovative teaching built around mathematical mindsets. Discover how visualizing, playing, and investigating pave the way for open student thinking, for powerful brain connections, for engagement, and for deep understanding of math concepts. Explore methods for creating an environment that values mistakes. Become familiar with the impact that positive messages have on students. Learn new strategies to increase student achievement.

A Google email account and use of Drive is recommended for this course. Required Text: Mathematical Mindsets, Jo Boaler.

Course Relation to CCS or other Professional Standards

Quality Professional Learning Standards: Element B: Pedagogy Quality professional learning expands educators' instructional and assessment skills, practices, and behaviors so that all students meet content and performance expectations and are ready for college and careers. INDICATORS Quality professional learning: 1. Builds educators' repertoires of evidence-based instructional approaches for various content areas and diverse student learning needs.

ISTE Standards: Learner: Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning. 1c: Educators stay current with research that supports improved student learning outcomes, including findings from the learning sciences.

Course Assignments Assignment 1 – Growth Mindset Objective(s):

- Understand what it means to have a growth mindset.
- Understand the power of mistakes.
- Determine methods through which you could develop a mathematical mindset in your students.

Activities:

- 1. Read Chapters 1-4 of Mathematical Mindsets.
- 2. Watch the following:

The TEDx Talk: "How you can be good at math, and other surprising facts about learning. Jo Boaler, TEDxStanford. https://youtu.be/3icoSeGqQtY

Watch: A school that keeps learning Part 3: Growth Mindset https://youtu.be/DKM6QwQpe3g Watch the video: Explore the following supplemental resources:

https://biglifejournal.com/blogs/blog/5-ways-kids-develop-growth-mindset-in-mathematics https://mrelementarymath.com/growth-mindset-math/ https://youtu.be/DKM6QwQpe3g

3. Create a presentation that summarizes your learning that could be shared with your students. Create the presentation using Google Slides, Prezi or PowerPoint. Include the following from the reading along with your learning from videos and websites:

Chapter 1: Write an introductory paragraph that you could share with your students about what you learned in Chapter 1. Be sure to include information about what happens to the brain when learning occurs, the myth of the math person and what it means to have a growth mindset.

Chapter 2:

Chapter 3: Based on tables on of 28-29, talk about how you could adjust your practice to reflect the most valued skills from 1999, as well as the 4 C's of the 21st century skills: critical thinking, creativity, collaboration, and communication.

Chapter 4: Share ways that you will help your students...

Add assignment 1 to your shared Google Drive folder. Share the assignment with mathdominican@gmail.com

Assignment 2 - Lesson Plan

Objective:

• Create a lesson plan that includes open ended tasks.

Activities:

- 1. Read chapters 5-7 of Mathematical Mindsets.
- 2. Explore the tasks offered at https://www.youcubed.org
- 3. Also, keeping in mind the idea of growth mindset grouping, choose a task (or create your own) that students could complete in groups. Describe how this could help students develop a growth mindset.

Assignment 3 – Assessment

Objective:

• Create an assessment.

Activities:

- 1. Read chapter 8 of Mathematical Mindsets.
- 2. Watch the video: Redos, Retakes and Do overs, Part 1 https://youtu.be/TM-3PFfIfvI
- 3.
- 4. Create a plan for ...

Assignment 4 – Norms

Objective:

• Create a set of norms that you will use in your classroom.

Activities:

- 1. Read chapter 9 of Mathematical Mindsets.
- 2. Review the norms shared in chapter 9. Write a letter to the parents of your students explaining how you will create a set of norms for your students that will ...

Add assignment 4 to your shared Google Drive folder. Share the assignment with mathdominican@gmail.com

Assignment 5 – Reflection

Objective:

• Reflect on your experience with Mathematical Mindsets and other resources about growth mindset in math.

Activity:

Reflect on your experience reading Mathematical Mindsets.

Add assignment 5 to your shared Google Drive folder. Share the assignment with mathdominican@gmail.com

Course Assessment Rubric

EXCELLENT	ACCEPTABLE	NOT ACCEPTABLE
Meets or Exceeds Course Objectives: A to A-	Majority of Work Meets Course Objectives; B+ to B-	Needs Considerable Improvement: Resubmit Work Suggested: C or below
All work submitted reflects in-depth understanding of course objectives.	Most work submitted reflects in-depth understanding of course objectives.	Work shows little or no in-depth understanding of course objectives.
Assignment responses shows evidence of new knowledge evidenced by completion of presentation, lesson plans and written reports.	Most responses show evidence of new knowledge evidenced by completion of presentation, lesson plans and written	Responses show little to no evidence of new knowledge evidenced by completion of presentation, lesson plans and written reports.
Work submitted was organized and clearly articulated.	Most work submitted was organized and clearly articulated.	Work submitted was not organized or not clearly articulated.
Assignment content and required projects were original.	Assignment content and required projects were original.	Evidence that not all assignment content and required projects were original.
Work is free of spelling and/or grammatical errors.	Work has few spelling and/or grammatical errors.	Work has numerous spelling and/or grammatical errors.

- You are allowed 9 months to complete the course
- For questions involving your registration please contact us at support@dominicanCAonline.com or call (800) 626-5080. To change your address, link to your Dominican Student Account at https://www.dominicancaonlinestore.com/store/index.php?main_page=login
 - For Dominican Self-Guided course information, link to http://dominicancaonline.com/Dominican-CA-OnlineFAO