



Course Syllabus:

Understanding and Combating
Math Anxiety

Understanding and Combating Math Anxiety
15 Hours or 1 Graduate Credit

Course Access: Upon enrollment, you have 180 days to complete your online course in our [Learning Management System](#). If you have any questions about course access, please email support@cecreditsonline.org, create a customer service ticket in the LMS, or call 425-788-7275 extension 104.

Course Description

Math anxiety is a pervasive problem faced by STEM students and teachers, both nationally and globally. Math anxiety undermines student performance and interest in math, discourages students from pursuing math-related careers, and reduces teaching self-efficacy among STEM teachers. Recent research in educational psychology has revealed important insights into the causes of math anxiety as well as simple strategies that can mitigate its effects. This course presents the current state of research on math anxiety along with evidence-based psychological strategies that can be implemented immediately to reduce the negative impact of math anxiety on students.

The first half of the course introduces the topic of math anxiety and examines its causes and consequences. The second half of the course provides easy-to-implement strategies for combating math anxiety. The course provides downloadable templates for some of the strategies. Participants will ultimately complete a final project in which they develop a multi-faceted plan, with measurable objectives, for reducing the effects of math anxiety using the ideas and strategies learned throughout the course.

In addition to designing a classroom culture in which students feel safe to take risks, participants will be provided simple, easy-to-implement evidence-based techniques for reducing the impact of math anxiety on students. The techniques are designed to teach students how to think differently about anxiety and the meaning of success and failure.

Objectives

- Understand the meaning and causes of math anxiety including how it is different from simply being “bad at math”
- Recognize the various ways that math anxiety can show up in the classroom, frequently under the guise of other attitudes and behaviors
- Appreciate the far-reaching consequences of math anxiety in an increasingly technological society
- Reflect on your own experience with learning math and how it might impact your attitude toward math and math education
- Learn simple psychological strategies that can be implemented immediately to help reduce the negative impact of math anxiety on students
- Gain access to downloadable resources that will make it easier to put the newly learned strategies into practice

Alignment to the [Charlotte Danielson Framework for Teaching](#)

Domain 1: Planning and Preparation

- 1b Demonstrating Knowledge of Students

Domain 2: Classroom Environment

- 2a Creating an Environment of Respect and Rapport
- 2b Establishing a Culture for Learning

Domain 3: Instruction

- 3a Communicating with Students
- 3c Engaging Students in Learning
- 3e Demonstrating Flexibility and Responsiveness

Domain 4: Professional Responsibilities

- 4a Reflecting on Teaching
- 4e Growing and Developing Professionally

Course Components

This course comprises slide presentations with original research-based contents, links to reputable readings and videos, discussion boards in which you will post to a forum, a classroom practice analysis in which you will implement and analyse the results of a learned strategy, and a comprehensive final project in which you will synthesize all you have learned into a coherent and detailed plan for combating math anxiety in your classroom. All elements of the course must be completed in order to obtain a letter of completion and/or credits. Your outline in the LMS will allow you to see your progress through the course.

Course Outline

Module 1: Math Anxiety 101

- Tour of the Math Classroom
- What's the Problem?
- How Did We Get Here?
- Why Should We Care?

Module 2: Combating Math Anxiety

- Building Trust
- Minding Your Manners
- Writing It Off
- Looking on the Bright Side
- Putting It All Together

Final Project: Plan for creating a Psychologically Safe Classroom

Learners will build their plan for creating a psychologically safe classroom as they move through the course. All presentations in Module 2 will prompt learners to revisit their Combating Math Anxiety Planning Document to add a new section based on their most recent learnings.

Grading Policy

Course Component	Percentage of Final Grade
Discussion Boards (4)	25%
Classroom Practice Analysis	25%
Final Project	50%

You must have an 80% average in order to pass and obtain University credit for this course unless your district has specified otherwise.

Compliance with and Commitment to the American Disabilities Act

In compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, participants who have any condition, either permanent or temporary, which might affect their ability to complete this course, are encouraged to reach out to support@cecreditsonline.org at the beginning of the course. We will make reasonable academic and accessibility accommodations to the course.

Academic Integrity Policy

Honesty is an essential aspect of academic integrity. Individual students are responsible for doing their own work and submitting original assignments as per the course directions. Individual students are responsible for doing their own work. Plagiarism and cheating of any kind will not be tolerated. This includes using information from the Internet without citing the website. Avoid plagiarism by appropriately acknowledging the source of the author's words and ideas.