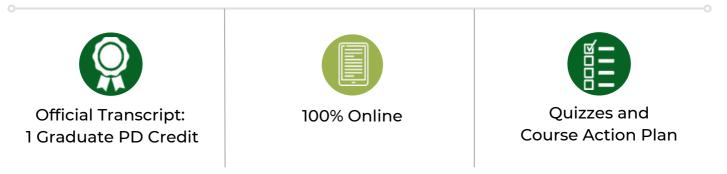# Academic Interventions

Standards:

This course aligns to all of the INTASC Standards including Learner Development, Learning Differences, Learning Environments, Content Knowledge, Application of Content, Assessment, Planning for Instruction and Instructional Strategies.

It also aligns to all of the McRel Teacher Evaluation Standards including Teacher Leadership, Diverse Learners, Teachers Know Content, Teachers Facilitate Learning and Teachers Analyze and Reflect.

It is increasingly essential for educators to develop students who not only are critical thinkers but innovators as well. This course provides a real-world approach to learning and teaching.

The first section brings together four major disciplines into one cohesive system: Science, Technology, Engineering, and Mathematics.

The second section focuses on applying mathematical standards and principles in everyday life.

The third section introduces the concept of student centered learning in their classrooms. This learning approach allows teachers to customize and differentiate curriculum for each student.

Official Transcript:
1 Graduate PD Credit

100% Online

Quizzes and
Course Action Plan

Academic Interventions

Course Outline

SECTION A: Standards-based Instruction through STEM

LESSON 1: Introduction

- Definition of STEM
- Need for STEM
- Three STEM program attributes and five different STEM program models

LESSON 2: Setting Up for STEM

- Characteristics of STEM students and teachers
- Understanding STEM in the context of Math and Science
- Integrating STEM into any classroom
- Choosing appropriate STEM material and curriculum

LESSON 3: STEM Standards and Assessments

- Shared standards that are internationally benchmarked
- Challenges and benefits of successful STEM assessments
- Assessments for elementary, middle, and high school classrooms
- Benefits, opportunities, and challenges of STEM integration

LESSON 4: Designing STEM PK-12 Curriculum

- Integrating STEM into elementary, middle, and high-school classrooms
- Designing STEM instruction for the year
- Writing individual STEM units using science, math, technology, and literacy standards
- Implementing effective lessons in the classroom

Academic Interventions
Course Outline

SECTION B: Mathematics for All Teachers

LESSON 1: Introduction

- History of mathematics
- The truth about math
- Discrediting the different math myths
- The solution to math anxiety

LESSON 2: Math Practices

- Mathematics redefined
- NCTM and CCSS standards related to math
- Mathematical practices and strategies to employ in the classroom

LESSON 3: Facilitating Student Learning

- Motivation theories and how to apply them in the classroom
- Different learning styles
- Understanding brain power
- Content knowledge and application

LESSON 4: Setting Up

- Math and group work
- Making connections between math and real life
- Using mathematical tools
- Encouraging persistence, providing novelty, and differentiating instruction while teaching math

Academic Interventions
Course Outline

SECTION C: Student-centered Learning

LESSON 1: Introduction

- Meaning, characteristics, and principles of Student-centered Learning
- Comparison between teacher-led and student-centered approaches
- Dispelling myths regarding student-centered classrooms
- Student-centered learning and the standards

LESSON 2: Setting Objectives and Providing Feedback in the SCL Classroom

- Developing student-centered learning objectives
- Facets of understanding
- Staying on track through learning logs
- Assessment and feedback techniques

LESSON 3: SCL Strategies for the Classroom

- Understanding the teacher's role in a student-centered classroom
- Teaching and learning methods
- Ensuring student motivation
- Classroom strategies for integrating SCL techniques

LESSON 4: Setting up for Success

- Potential of technology in key areas of learning
- Tools that enhance learning in student-centered classrooms
- Getting parents involved in learning
- Extending learning opportunities outside of school hours