



**SCOTTSDALE  
COMMUNITY COLLEGE**

A MARICOPA COMMUNITY COLLEGE

Spring 2024

## **Course Information**

Course Title:	Mathematics Methods and Curriculum Development
Course Prefix & Number:	EDU293
Credit Hours:	3 credits
Meeting Days:	Thursday
Meeting Times:	5:00pm – 8:30pm

## **Course Format**

The course format for this course is Hybrid. We will meet each Thursday night starting on February 29<sup>th</sup> and ending on April 25<sup>th</sup> from 5:00pm to 8:30pm; except for March 14<sup>th</sup>.

## **Instructor Information**

Instructor:	Lindsay Gilbert
Email:	<a href="mailto:lindsay.gilbert@scottsdalecc.edu">lindsay.gilbert@scottsdalecc.edu</a>
Phone:	(480) 382 – 8099
Office Hours:	By Appointment Only

## **Course Description**

Overview and practical application of teaching mathematics in K-8 grades. Development of lesson plans and assessment instruments emphasized. Current trends, Professional Teaching Standards and National Council of Teachers of Mathematics Standards also covered. Includes current research findings related to the application and learning of elementary mathematics content.

## Prerequisites

Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.

## Course Competencies

1. Identify current Professional Teaching Standards. (I)
2. Identify National Council of Teachers of Mathematics Standards. (I)
3. Summarize the factors involved in developing national and state mathematics standards. (I)
4. Develop a task analysis of mathematical concepts taught in K- 8 grade levels. (II)
5. Summarize characteristics of learners. (III)
6. Use various classroom management techniques. (IV)
7. Assess various teaching resources to teach math. (V)
8. Analyze the use of technology to teach mathematics. (VI)
9. Critique and analyze current research findings in mathematics education. (VII)
10. Develop math curriculum. (VII)
11. Demonstrate the ability to write lesson objectives. (VII)
12. Summarize various teaching strategies. (VIII)
13. Analyze the use of manipulatives in teaching mathematics. (IX)
14. Summarize assessment standards. (X)
15. Evaluate various assessment options. (X)
16. Develop assessment instruments for math. (X)
17. Prepare a lesson plan. (XI)
18. Teach a math lesson. (XI)
19. Complete field experience as a volunteer teacher aide. (XII)
20. Summarize the field experience. (XII)

## Texts, Course Materials and Technologies

*Elementary & Middle School Mathematics: Teaching Developmentally. 9th or 10th ed., Pearson, by John A. Van de Walle, Karen S. Karp, and Jennifer M. Bay-Williams. \*\*\**

*\*\*\*We will reference this text in class, however, you are not required to purchase this book.*

## Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the [Student Regulations](#) page of the Maricopa Community College District website.

### Lesson Plan Rubric:

	<b>5</b> <b>Exceeds Expectations</b>	<b>4</b> <b>Meets Expectations</b>	<b>3</b> <b>Needs Improvement</b>	<b>2</b> <b>Does Not Meet Expectations</b>
<b>Learner Outcomes/Objectives</b>	Observable, relates to purpose, include higher level thinking skills	Observable relates to purpose	Objectives given	Objectives unclear or not related to purpose
<b>Materials/Resources</b>	Creative, variety of resources that connect to "real world", effectively integrate technology and/or manipulatives	Variety of resources that connect to "real world"	Resources included	Resources limited or not included
<b>Anticipatory Set</b>	Motivating, attention getting, taps prior knowledge	Attention getting, taps prior knowledge	Taps prior knowledge	Lesson introduction minimal or lacking
<b>Activities</b>	Meaningful, motivating, objective based, open-ended inquiry based	Objective based, meaningful, student centered	Objective based, meaningful	Activity limited or does not relate to objective
<b>Check for Understanding</b>	Variety of assessment strategies included & consistent with objectives	Both pupil and teacher assessment included	Includes teacher or pupil assessment strategies	Limited or no assessment strategies included
<b>Meeting Individual Needs</b>	Provides choices and open-ended activities for all abilities	Students have choices and variety of tasks of varying levels	Student tasks align with objectives	Tasks partially allow or do not allow for individual differences
<b>Closure</b>	Summaries & includes lesson objectives and future plans	Summaries & includes lesson objective	Summaries	Closure limited or not connected to lesson objectives
<b>Overall Organization &amp; Quality</b>	Well-planned, sequential, clearly organized, thorough development	Organized, sequential	Some organization	Minimal or no organization and development

# Grading Standards & Practices

## Grade Scale

Letter Grade	Points Range
<b>A</b>	90 – 100%
<b>B</b>	80 – 89%
<b>C</b>	70 – 79%
<b>D</b>	60 – 69%
<b>F</b>	0 – 59%

## Assignments

Assignment Name	Points	Percent of Grade
<b>Participation – includes canvas discussions (25 pts per session)</b>	200	30%
<b>Observe a Master Math Teacher</b>	25	10%
<b>Discussions (3 @ 25 points each)</b>	75	15%
<b>Lesson Plan, Teach Math Lesson, &amp; Lesson Reflection</b>	150	25%
<b>Geometry Unit Project</b>	50	10%
<b>Field Experience Reflection</b>	25	10%
<b>TOTAL:</b>	<b>525</b>	<b>100%</b>

## Response Time

Students can expect a response time of 24 hours during the week for the instructor to respond to messages sent via the Canvas Learning Management System or email. Students can expect assignments to be graded within one week of the assignment's due date.

## Attendance Policy

Students will earn 25 points per session for participation in the class discussions and class assignments. Although attendance is vital to passing any course and attendance to every class session is highly recommended, I recognize that emergencies occur. If an absence is required, please email me as soon as you become aware, and I will let you know what can be made up to earn a portion of that week's points. The portion of the weekly participation points that can be recovered will vary per session. Please keep in mind class discussions cannot be recreated; therefore, these points cannot be recovered.

## Instructional Contact Hours (Seat Time)

This is a three (3) credit-hour course. Plan to spend at least three hours on course content or seat time (direct instruction) and six hours on homework weekly. Accelerated courses will require additional time per week.

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.